

3rd Grade Distance Learning

Mandatory assignments due on Friday, May 29. No School May 25 for Memorial Day Holiday.

Contact the third grade teachers through the Remind app or by email:

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Content Area	Online Option	Offline Option
Reading	<u>Mandatory</u> <ol style="list-style-type: none">1. Readworks- The Whys of Weather- Clouds2. Readworks- The Whys of Weather- Rain3. Readworks- Summer Vacation (fiction) <u>Optional</u> <ol style="list-style-type: none">1. Epic- Multiplication Books2. Epic-Weather Books	<u>Mandatory</u> <ol style="list-style-type: none">1. Readworks- The Whys of Weather- Clouds2. Readworks- The Whys of Weather- Rain3. Readworks- Summer Vacation (fiction) <u>Optional</u> <ol style="list-style-type: none">1. Read
Writing	<u>Mandatory</u> <p>Tell us about your plans for Summer Vacation.</p> <p>Your writing should be at least one paragraph. Make sure to use proper grammar and your best spelling.</p> <u>Optional</u> <p>Distance Learning Journal</p>	<u>Mandatory</u> <p>Tell us about your plans for Summer Vacation.</p> <p>Your writing should be at least one paragraph. Make sure to use proper grammar and your best spelling.</p> <u>Optional</u> <p>Distance Learning Journal- write about what you've been doing at home</p>
Math	<u>Mandatory</u> <ol style="list-style-type: none">1. Tricks to Learn Multiplication Video2. Single Digit Multiplication Facts 13. Multiplication and Division 24. Multiplication Word Problems 35. Multiplication Quizizz	<u>Mandatory</u> <ol style="list-style-type: none">1. Blank Multiplication Chart- Worksheet 12. Multiplication Worksheet 23. Multiplication Word Problems 34. Multiplication Quizizz

	<u>Optional</u> <ol style="list-style-type: none"> 1. Multiplication Mashup Video 2. 37 Online Multiplication Games 3. Race to the Moon Multiplication Game 4. Multiplication Find the Facts Game 	<u>Optional</u> <ol style="list-style-type: none"> 1. Race to the Moon Multiplication Game 2. Multiplication Find the Facts Game
Science	<u>Mandatory</u> <ol style="list-style-type: none"> 1. The study of weather is considered science. Please read the 3 ReadWorks' articles and take the 3 attached tests linked under "Question Set." <u>Optional</u> <ol style="list-style-type: none"> 1. Tornados-Mystery Science 2. Hurricanes-Mystery Science 3. What is Worse a Hurricane or a Tornado-Mystery Science 4. Make a Tornado in a Bottle-Video 5. Make Clouds in a Bottle-Video 6. Make the Water Cycle in a Bottle Experiment 7. Make a Thunderstorm-Experiment 8. Epic-Weather Videos 	<u>Mandatory</u> <ol style="list-style-type: none"> 1. The study of weather is considered science. Please read the 3 ReadWorks' articles and take the 3 attached tests linked under "Question Set." <u>Optional</u> <ol style="list-style-type: none"> 1.
Social Studies	<u>Mandatory</u> <ol style="list-style-type: none"> 1. N/A <u>Optional</u> <ol style="list-style-type: none"> 1. Kid Meteorologist- PBS Video 2. Meteorology for Kids Article 3. DIY Weather Station For Kids 	<u>Mandatory</u> <ol style="list-style-type: none"> 1. N/A <u>Optional</u> <ol style="list-style-type: none"> 1.
Art (Always Optional)	<ol style="list-style-type: none"> 1. Artist William Turner- Video 2. How to Draw Simple Weather-Video 3. How to Draw Clouds-Video 4. How to Draw an Easy Tornado-Video 5. How to Draw a Thunderstorm 6. Spring Multiplication Coloring Page 	<ol style="list-style-type: none"> 1. Spring Multiplication Coloring Page

Additional (Always Optional)	<ol style="list-style-type: none">1. Uppercase Cursive2. Lowercase Cursive3. Epic- Jokes & Riddles Books4. Weather Word Search5. Printable Multiplication Table6. Multiplication Printable Game With Spinner7. Brainpop News <p>Other resources linked here: Symbaloo Clever</p>	<ol style="list-style-type: none">1. Cursive Introduction2. Uppercase and Lowercase Cursive3. Weather Word Search4. Printable Multiplication Table5. Multiplication Printable Game With Spinner
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Week 8 : May 25 - May 29

Suggested Pacing Guide:

(The work is not intended to comprise of an entire school day and can be completed at a pace that fits your child best)

Time	Activity
8:00	Wake up and eat breakfast
8:45	Mandatory Reading Assignment (On Thursday and Friday do Writing)
9:15	Brain break - stretch, do a Go Noodle, get up and move!
9:30	Mandatory Math Assignment
10:15	Brain break and snack
10:45	Look at some of the FUN optional activities in Reading, Writing, and Math!
11:30	Brain Break
11:45	Read a book!
12:15	Brain Break and lunch
12:45	Explore the optional Science, Art, or Additional activities we have found.

Suggested Pacing Guide (By Week):

Day	Assignments
Monday	One Readworks assignment, the first math assignment, optional activities
Tuesday	One Readworks assignment, the second math assignment, optional activities
Wednesday	One Readworks assignment, the third math assignment, optional activities
Thursday	Final Readworks, writing, final math or quizizz, optional activities
Friday	Revise writing, quizizz, optional activity

We ALWAYS encourage you to get outside, play, and enjoy your extended time with family!

The Whys of Weather: Clouds

by ReadWorks



Have you ever looked up at clouds and wondered where they come from or what they are made of? Clouds can be different shapes, but they are all mostly made of water.

There are always small particles of water in the air that people can't see. A lot of these tiny particles of water are in the form of a gas called water vapor. Most of the water vapor in the air comes from the oceans. This happens when liquid water toward the surface of the oceans is warmed, usually by the sun. Eventually, the warmed water becomes water vapor, rising into the air.

To make clouds, the water particles in the air have to come together, but they can't come together as water vapor. They need to be liquid water or ice crystals. Water vapor can turn into liquid water through a process called condensation.

In the air, liquid water can stick to specks of dust, water drops, or ice crystals. This forms cloud droplets. Lots of cloud droplets together form clouds.

particle

par · ti · cle

Definition

noun

1. a tiny amount or small piece.

There's a particle of dirt on your glasses.

Advanced Definition

noun

1. a minute quantity or piece; speck; trace.
2. in physics, one of various extremely small constituents of matter.

Spanish cognate

partícula: The Spanish word *partícula* means particle.

These are some examples of how the word or forms of the word are used:

1. As air **particles** respond to changes in pressure, they move and create wind.
2. Think of all of the oceans and lakes on the globe. This is where the tiny water **particles** in the air come from.
3. The probe spent seven years exploring space and collecting **particles** that may hold clues to the solar system's origins.
4. The sunshine passes through the water **particles**, which act as prisms. Then sunlight separates into all the colors of the rainbow!
5. There are always small **particles** of water in the air. Usually we cannot see them. Most of the time the water particles are spread very far apart. To make clouds, the water particles have to come together.
6. But usually the water **particles** are spread so far apart that you cannot see them. When warm air becomes colder, it condenses. The cool temperatures draw the water particles together. This forms the rain cloud.
7. The foul chemicals in it had been filtered by osmosis, a process in which water molecules pass through a membrane, leaving dissolved **particles** behind. The resulting liquid was safe to drink -and surprisingly sweet and tasty, she writes.

process proc · ess

Definition

noun

1. actions taken to make or do something.

We are learning the process of baking bread.

2. changes or acts that happen one after another.

The process of growing up takes many years.

verb

1. to handle, treat, or change something by following certain steps.

That factory processes aluminum into foil.

She processes all the invoices for the company.

Advanced Definition

noun

1. a systematic sequence of actions used to produce something or achieve an end.

Her process of writing a novel begins with getting an idea and sketching it out.

An assembly-line process made the mass production of automobiles possible.

2. a continuous series of changes, functions, or operations.

The process of becoming a responsible adult can take many years.

3. movement onward or forward; progression.
4. a summons ordering a person to appear in court.
5. the entire course of a legal proceeding.

transitive verb

1. to handle, treat, or transform according to a systematic procedure.

The new computers processed data at very high speeds.

2. to treat or manufacture according to a particular procedure.

We saw how they process cheese.

3. to serve with a court summons.

adjective

1. treated or modified by artificial means, as food.

Spanish cognate

proceso: The Spanish word *proceso* means process.

These are some examples of how the word or forms of the word are used:

1. Nuclear energy is created by the splitting of the nucleus of an atom. That **process** is called nuclear fission.
2. The silk-making **process** is very interesting. Silk comes from the cocoon that silkworms make when they are transforming into butterflies.
3. Pasteur discovered a way to make milk, wine, and foods safe. The **process**, known as pasteurization, was named after him.
4. Alex awoke under a pile of his own dirty clothes. As always, the **process** was slow. According to Alex's mother, Alex was "just not a morning person."
5. Egyptians used a grain from emmer wheat for their bread. The grain was ground by hand on a millstone. This **process** cracked and crushed the grain into coarse flour.
6. People also help decrease their solid wastes when they recycle. Recycling refers to putting old objects, such as glass, plastic bottles, newspapers, and aluminum cans through a special **process** so they can be used again.
7. By 1804, all states north of Maryland had voted to abolish slavery, many through a **process** of gradual emancipation, which set deadlines by which a slave must be freed, depending on the work done or the age reached.
8. To make an aluminum can from scratch, for example, the metal needs to be mined from the ground. That **process** harms the land and pollutes the air and water. Making aluminum cans from recycled cans uses 95 percent less energy and protects Earth's natural resources.
9. For nearly 20 years, Ikram has been studying the dead of ancient Egypt, becoming an expert in animal mummification. She has tried to determine the ingredients ancient Egyptians used to preserve the animals. One of the main ingredients in the **process** was natron, a native Egyptian salt often found at the edges of lakes.

Name: _____ Date: _____

1. What are clouds mostly made of?

- A. air
- B. water
- C. sunlight
- D. none of the above

2. The text describes the sequence of how clouds form. What happens before water vapor turns into liquid water through condensation?

- A. Water vapor rises in the air.
- B. Liquid water sticks to specks of dust, water drops, or ice crystals.
- C. Cloud droplets form clouds.
- D. Rain falls from the clouds.

3. Clouds are not entirely made up of water droplets. What evidence from the text supports this statement?

- A. "Most of the water vapor in the air comes from the oceans. This happens when liquid water toward the surface of the oceans is warmed, usually by the sun."
- B. "There are always small particles of water in the air that people can't see. A lot of these tiny particles of water are in the form of a gas called water vapor."
- C. "In the air, liquid water can stick to specks of dust, water drops, or ice crystals. This forms cloud droplets. Lots of cloud droplets together form clouds."
- D. "To make clouds, the water particles in the air have to come together, but they can't come together as water vapor."

4. Read these sentences: "In the air, liquid water can stick to specks of dust, water drops, or ice crystals. This forms cloud droplets. Lots of cloud droplets together form clouds."

As used in these sentences, what does the word "form" most nearly mean?

- A. destroy or harm
- B. make or create
- C. show or display
- D. train or guide

5. What is the main idea of this passage?

- A. Clouds can be different shapes, but they are all mostly made of water.
- B. To make clouds, the water particles in the air have to come together.
- C. Most of the water vapor in the air comes from the oceans.
- D. Clouds are formed when water vapor in the air turns into liquid water that can stick to specks of dust, water drops, or ice crystals.

6. What is condensation?

7. Why is condensation necessary for clouds to form? Use evidence in the text to support your answer.

8. Choose the answer that best completes the sentence.

_____ there are always small particles of water in the air, people cannot see them!

- A. As a result
- B. However
- C. Even though
- D. Because

The Whys of Weather - Rain

by ReadWorks



The sky gets cloudy. Clouds get darker and darker. The sun disappears, and soon drops of water start falling from the sky. But have you ever wondered why? What makes the rain fall?

First, you have to understand condensation. On a hot day, have you ever had a glass of a cold drink and noticed the outside of the glass getting wet? How does this happen? There is water in the air that you cannot see. It's in the form of a gas called water vapor. The cool drink cools the air around the glass. This causes the water vapor around the glass to turn into liquid water on the glass. Little water droplets form and make the outside of the glass wet. This is an example of condensation. Condensation is the process by which water vapor in the air changes into liquid water.

There is always water vapor in the sky. After water vapor turns into liquid water, cloud droplets might form. This happens when the liquid water sticks to specks of dust, ice crystals, or even other liquid water droplets. Many cloud droplets form a cloud.

In the cloud, millions of cloud droplets make a raindrop. When raindrops become too heavy to stay up in the cloud, they fall to the ground as rain. Rain is a form of precipitation. Other forms of precipitation include snow and hail.

Definition

noun

1. tiny pieces of a liquid or solid that float in a gas.

Mist and clouds are made of water vapor.

Advanced Definition

noun

1. tiny particles of a liquid or solid suspended in or diffused through air or gas, such as smoke or mist.
2. in physics or chemistry, particles of a substance distributed as a gas below the substance's actual boiling point.
3. a liquid or solid brought to a gaseous state by heat, a drop in pressure, or the like.
4. the mixture of gasoline droplets and air burned in an internal combustion engine.

transitive verb

1. to cause to rise or diffuse as a vapor; vaporize; evaporate.

intransitive verb

1. to rise or diffuse as a vapor; evaporate.
2. to emit or give rise to vapor; atomize.

These are some examples of how the word or forms of the word are used:

1. Water **vapor** in the air can freeze into ice crystals. When that happens in clouds, snowflakes form!
2. When a CFL bulb breaks, some of this mercury gets into the air as **vapor**. The broken bulb can release mercury vapor until it is cleaned up and removed.
3. Water **vapor** forms clouds in the Earth's atmosphere when it cools and condenses back into tiny droplets of liquid water. Water in the clouds traps in some of the heat from the Earth's surface.

Name: _____ Date: _____

1. What is the process by which water vapor in the air changes into liquid water?

- A. liquidation
- B. perspiration
- C. condensation
- D. precipitation

2. Why does the author describe the condensation of water droplets on the outside of a cold glass?

- A. to explain how rain is different from snow
- B. to show how water evaporates into the air
- C. to give an example of how water is unpredictable
- D. to compare it to condensation of water in the sky

3. If water did not condense into clouds in the sky, which of the following statements would be true?

- A. It would not rain or snow.
- B. There would be no sunshine.
- C. It would rain all the time.
- D. There would be snow but not rain.

4. Read the following sentences:

"There is always water vapor in the sky. After water vapor turns into liquid water, cloud droplets might form. This happens when the liquid water sticks to specks of dust, ice crystals, or even other liquid water droplets. Many cloud droplets **form** a cloud."

Based on these sentences, what does the word "**form**" most nearly mean?

- A. to speed up
- B. to create
- C. to shape or structure
- D. to destroy

5. What is a main idea of this text?

- A. Condensation is a key part of the process that forms clouds.
- B. A cool drink cools the air around the glass, causing little water droplets to form outside of the glass.
- C. When raindrops become too heavy to stay up in the cloud, they fall to the ground as rain.
- D. There are different types of precipitation.

6. Why does condensation form on the outside of a drinking glass?

7. Why is condensation necessary for clouds to form? Use evidence in the text to support your answer.

8. Choose the answer that best completes the sentence.

_____ water vapor turns into liquid water, cloud droplets might form.

- A. Although
- B. Before
- C. After
- D. However

Summer Vacation

by Gabrielle Sierra



One day during Jose's summer vacation, he woke up and wanted to go to the pool.

He made his bed, put on his swimsuit, and grabbed his towel from the hall closet. Then he went to the kitchen table and sat down for breakfast.

"Jose," his mom said, as she served him scrambled eggs and toast. "Why are you wearing your bathing suit?"

"Because today I want to go to the pool," he said. He started to eat his eggs very fast so that they could leave for the pool right away.

His mother laughed. "Jose, look outside," she said. "I'm sorry, but we can't go to the pool

today."

Jose jumped out of his seat and looked outside the window. It was raining really hard, and there was thunder and lightning. People outside were hurrying back and forth with umbrellas over their heads, while the trees blew in the wind.

"Oh no," Jose said. "Rain! Now we can't go to the pool."

He sat back down at the table and quietly finished his breakfast. He was sad. His plans for the pool were not going to happen.

Jose's mom grabbed her laptop computer and brought it over to the table. She turned it on and gave Jose a hug.

"Don't worry sweetheart," she said, "let's look up the weather for tomorrow, and see if we can go to the pool then."

Jose's mom searched on the Internet for the local weather news. Jose watched as the screen displayed a bunch of pictures with sun and rain clouds next to each day of the week.

"What are those?" he asked.

"This is a news website that shows the weather for each day of the week," she said. "Here is today."

She pointed to a rain cloud next to the day marked "Tuesday."

"The rain cloud means that today it is going to rain all day. And here it says the temperature: 85 degrees Fahrenheit."

"That is hot," said Jose. "And the pool is good on a hot day."

"It is hot, but raining, so the pool will not be open today," said Jose's mom. "But tomorrow, Wednesday, there is a sun picture. That means the weather forecaster is predicting tomorrow will be sunny. It also says that tomorrow will be 90 degrees, which is even hotter than today."

"Then we can go to the pool!" said Jose.

"Yes, if it is sunny and hot, we can go to the pool," said Jose's mom. "As long as you wear your sunscreen."

Jose was excited. But he was also a little confused. How did the weather forecaster know

about the weather before it happened? Could he predict the future?

"Mom, how does the weather forecaster know what the weather is going to be like tomorrow?" he asked.

"Well," said Jose's mom, "scientists use tools in order to predict the weather. They record patterns and can figure out what will most likely happen next. For example, if the scientists see a storm that is moving across other states toward us in New York, they can measure the storm, and how fast it is moving. Then they can tell if it will be rainy in a few days or a few weeks. We can see this weather prediction listed on a website, or on the television."

"You mean we hear it from those people who read the news on TV," said Jose.

"Right," said Jose's mom. "Some of the news people who read the weather forecast on TV are called meteorologists. A meteorologist is someone who studies, explains, and understands the weather forecast. They go to school to study how to predict and understand the weather. That way people like you and me can see if it will be raining tomorrow or this weekend."

After lunch the rain got a little lighter, and Jose's mom let him put on his rain boots and play in the backyard. Then after a shower, Jose and his mom had dinner and watched a movie. The next morning Jose got up, put on his bathing suit, and grabbed his towel. He peeked outside the window and saw that the sun was shining.

"Mom!" he shouted as he ran to the breakfast table. "The scientists were right! It is sunny today. Let's go to the pool!"

And they did.

forecast fore · cast

Definition

verb

1. to say that something is likely to happen.

The weather report forecasts rain for this afternoon.

noun

1. a guess or estimate about something that will happen in the future.

I'm waiting to hear the weather forecast.

Advanced Definition

transitive verb

1. to predict (weather conditions).

The weather report forecasts rain for this afternoon.

2. to give an early indication of; foreshadow.

The mass protests of that summer forecasted the eventual downfall of the government.

intransitive verb

1. to make an estimate or calculation before something occurs; make a prediction.

noun

1. an estimate, calculation, or conjecture about something that will happen in the future; prediction.

We heard the weather forecast and decided to cancel the barbecue party.

Would you care to make a forecast concerning tonight's sporting event?

These are some examples of how the word or forms of the word are used:

1. Heavy rain is always in the **forecast** for Pakistan in summer.
2. One time the weather **forecaster** on the nightly news said that a hurricane had formed near Florida, and that the hurricane would probably impact the area. So school was closed completely the next day.

3. What does the word "weather" mean to you? Everyone knows how to describe the weather. There are beautiful sunny days with blue skies and then there are gray rainy days perfect for staying in bed. But do you know what actually causes weather? The pictures above show the **forecast** for a week.
4. Weather **forecasters** are always trying to get better at predicting when a haboob will happen. The sooner they know a haboob is coming, the sooner they can warn people about it. The sooner people are warned about a haboob, the more lives will be saved. This is because more people will be able to get to safety before the haboob strikes.

7. limit.

There was no measure to his greed.

8. rhythm; pace.

music in a stately measure.

9. a rhythmic unit in music; bar.

The first melody lasts for sixteen measures and then is repeated.

transitive verb

1. to make exact calculations of the dimensions of (something) within time or space.

They measured the room before ordering the new carpet.

Measure the water carefully before adding it to the dry mixture.

2. to record the exact proportions of.

3. to ascertain the value, strength, or quality of by comparison with a standard.

intransitive verb

1. to make exact calculations of dimensions within time and space.

When I cook, I always measure; I never guess.

2. to have as a measurement.

This board measures three feet.

Spanish cognate

medir. The Spanish word *medir* means measure.

These are some examples of how the word or forms of the word are used:

1. What do scientists (known as climatologists) look for when they study a region's climate? You are already familiar with most of the ingredients. They **measure** average rainfall, sunshine, winds, and temperature.
2. Crowds of onlookers gathered to celebrate the rebellious act. They nicknamed the event the Boston Tea Party. The British responded quickly and harshly. In 1774, they passed several **measures** known as the Intolerable Acts.
3. "An earthquake is the result of a sudden release of energy in the Earth's crust that creates

something called seismic waves. That is why the machine used to **measure** an earthquake is called a seismometer."

4. After being chosen secretary-general, Ban spoke to the General Assembly. He said, "The true **measure** of success for the U.N. is not how much we promise but how much we deliver for those who need us most."
5. The meter helps someone reading the music know how the notes should be played in relation to each other and which ones should be emphasized. The meter is a pattern determined by the number of beats (rhythmic units) in each **measure**.
6. Skin is the largest organ in your body. If you stretched out an adult's skin into a flat sheet, it would cover an area of about 21 square feet. A square foot is a square whose sides each **measure** 1 foot.

2. "An earthquake is the result of a sudden release of energy in the Earth's crust that creates something called seismic waves. That is why the machine used to measure an earthquake is called a seismometer. This machine helps scientists figure out what is going on in the Earth and helps **predict** any future earthquakes, since they sometimes come in patterns."
3. Gibson is part of the Hurricane Hunters. Their job is to fly airplanes into storms. Hurricane Hunters are part of the U.S. Air Force Reserve. They help scientists **predict**, or guess, where the storms are headed.
4. From observing and determining the patterns we find in sunrises and sunsets, we can **predict** the seasons in the future.
5. Meteorologists can usually **predict** hurricanes several days in advance.
6. A long time ago, farmers used to put weather vanes on their barns so that they could use wind direction to **predict** rain.
7. Because of the regular orbit of the moon around the earth and the regular orbit of the earth around the sun, astronomers can **predict** when an eclipse happens even many years into the future.

Name: _____ Date: _____

1. Where does Jose want to go after he wakes up?

- A. the movies
- B. the park
- C. the pool
- D. the yard

2. Jose wants to go swimming, but there is a problem. What is the problem?

- A. It is raining, so the swimming pool will not be open.
- B. It is too hot outside to go to the swimming pool.
- C. It is too cold outside to go to the swimming pool.
- D. Jose has to help his mom around the house all day.

3. Jose is very excited about going to the pool.

What evidence from the story supports this statement?

- A. Jose watches the laptop screen as it displays pictures with sun and rain clouds next to each day of the week.
- B. Jose's mom says he can go to the pool on Wednesday as long as he wears his sunscreen.
- C. Jose is a little confused about how the weather forecaster can know about the weather before it happens
- D. Jose starts to eat his eggs very fast so that he and his mom can leave for the pool right away.

4. How can a weather forecaster predict the weather?

- A. A weather forecaster can jump out of his seat at breakfast and look through the window to see whether it is raining outside.
- B. A weather forecaster can look at weather in another place and its movement to make a prediction about the weather where he is.
- C. A weather forecaster can predict the weather by finding an indoor pool that stays open whether or not it is raining outside.
- D. A weather forecaster can predict the weather by putting on rain boots and going into the backyard.

5. What is this story mainly about?

- A. a boy who wants to go to the pool and predicting the weather
- B. a person who goes to school to study how to predict the weather
- C. the sadness a boy feels one day when it rains outside
- D. a swimming pool, umbrellas, rain boots, scrambled eggs, and toast

6. Read the following sentences: "Jose was excited. But he was also a little confused.

How did the weather forecaster know about the weather before it happened?

Could he predict the future?"

Why does the author include the two questions above?

- A. to prove that weather forecasters do not know what they are doing
- B. to convince readers that they should become weather forecasters
- C. to explain why Jose loves his mom so much
- D. to show readers the thoughts in Jose's mind

7. Choose the answer that best completes the sentence below.

Jose does not go to the pool on Tuesday, _____ he goes to the pool on Wednesday.

- A. for example
- B. never
- C. but
- D. especially

8. What kind of weather is predicted for Wednesday?

9. How does Jose feel when he learns about the weather prediction for Wednesday?

10. Is weather prediction helpful to the characters in this story? Support your answer with evidence from the passage.

Name: _____

Date: _____

Write about your plans for Summer Vacation.

Your writing should be at least one paragraph. Make sure to use proper grammar and your best spelling.

[illegible]

Name _____

Date _____



BLANK MULTIPLICATION CHART TO 12X12 #8

X	8	5	9	2	12	7	4	10	1	6	12	3
3												
7												
10												
4												
1												
6												
9												
2												
8												
5												
12												
11												



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Name

Date



BLANK MULTIPLICATION CHART TO 12X12 #8 ANSWERS

X	8	5	9	2	12	7	4	10	1	6	12	3
3	24	15	27	6	36	21	12	30	3	18	36	9
7	56	35	63	14	84	49	28	70	7	42	84	21
10	80	50	90	20	120	70	40	100	10	60	120	30
4	32	20	36	8	48	28	16	40	4	24	48	12
1	8	5	9	2	12	7	4	10	1	6	12	3
6	48	30	54	12	72	42	24	60	6	36	72	18
9	72	45	81	18	108	63	36	90	9	54	108	27
2	16	10	18	4	24	14	8	20	2	12	24	6
8	64	40	72	16	96	56	32	80	8	48	96	24
5	40	25	45	10	60	35	20	50	5	30	60	15
12	96	60	108	24	144	84	48	120	12	72	144	36
11	88	55	99	22	132	77	44	110	11	66	132	33

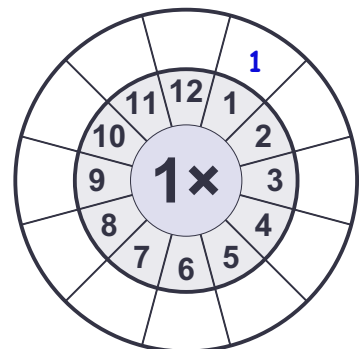
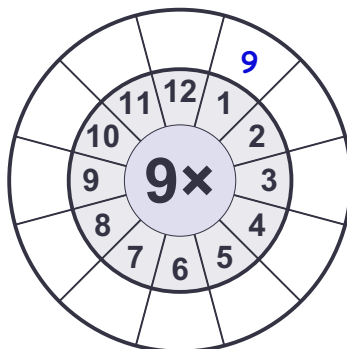
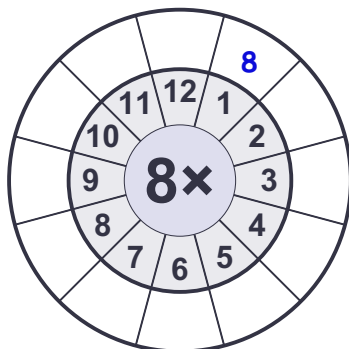
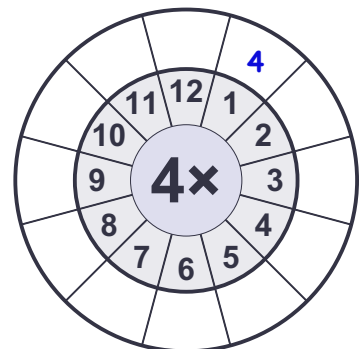
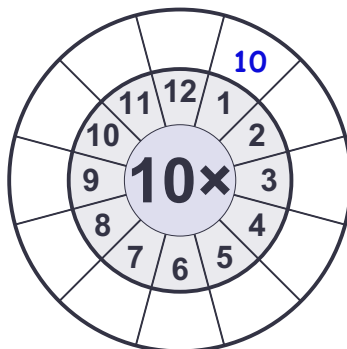
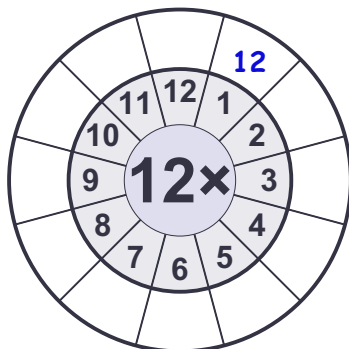
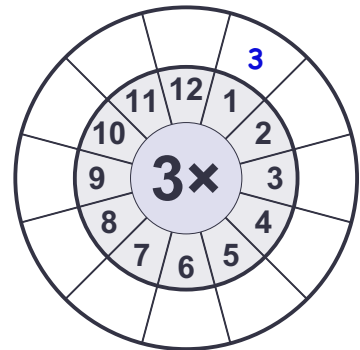
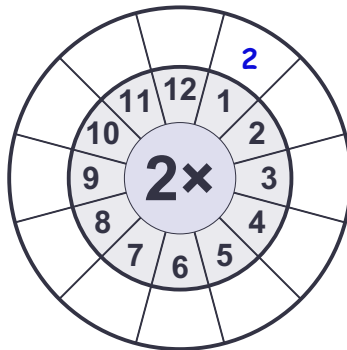
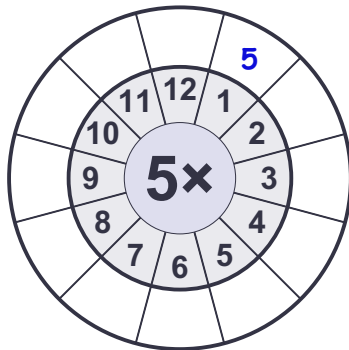
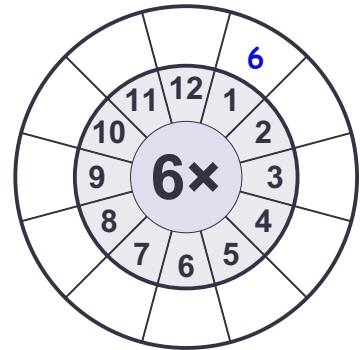
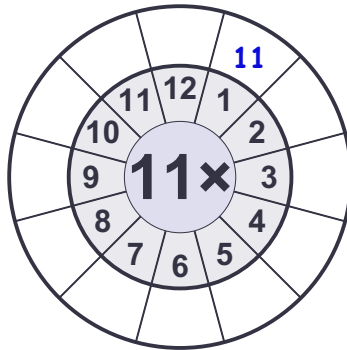
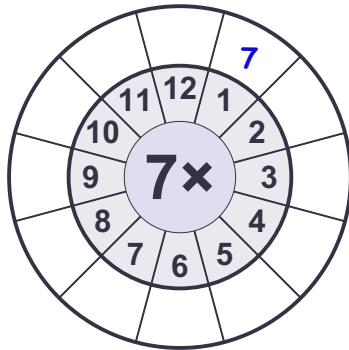


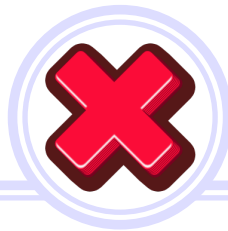
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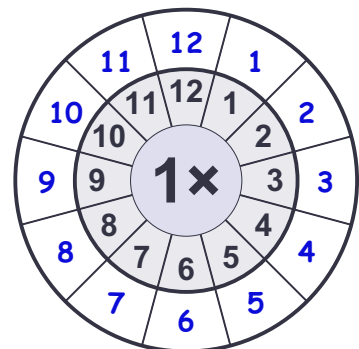
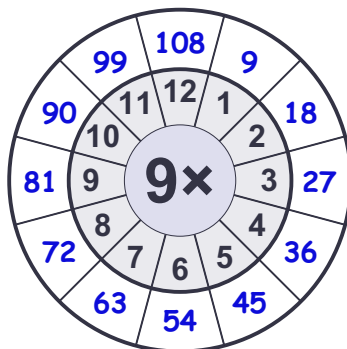
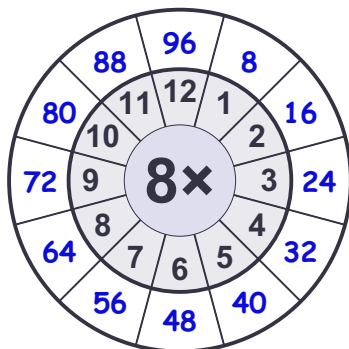
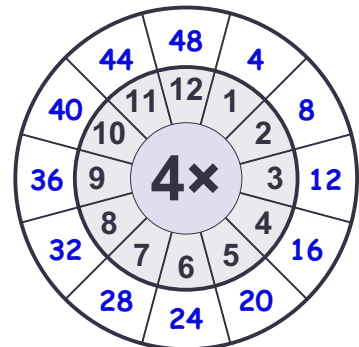
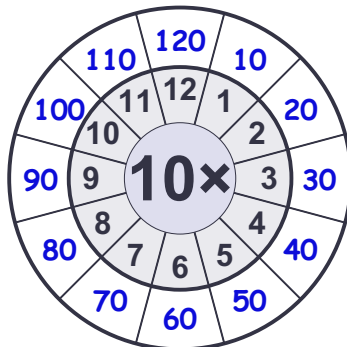
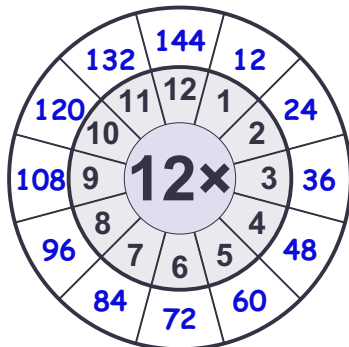
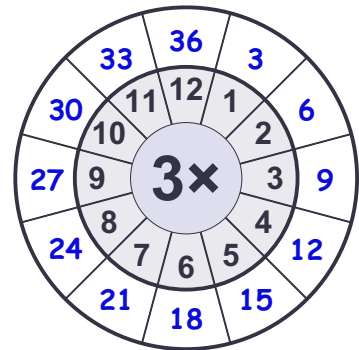
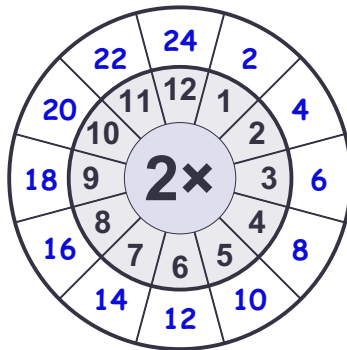
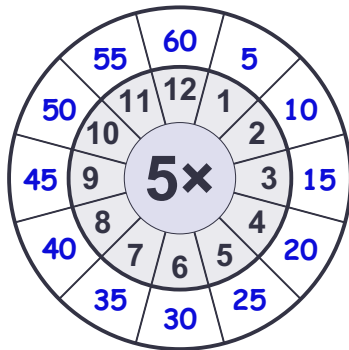
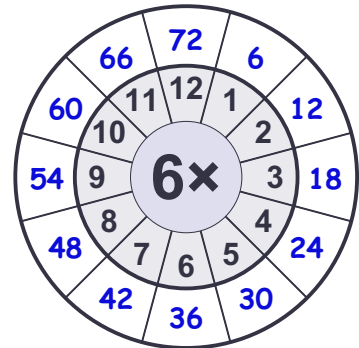
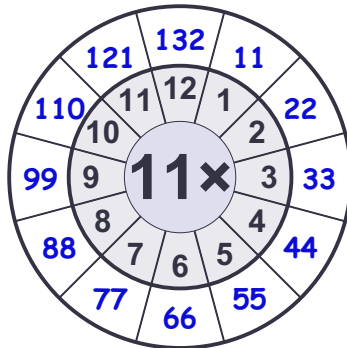
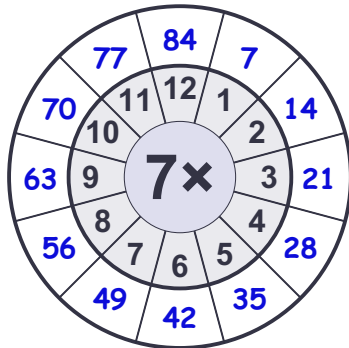


Name: _____





Name: Answer Key



Name _____

Date _____



MULTIPLICATION PROBLEMS 3.3B

Have a go at solving these multiplication problems.

Can you spot the 'trick' problem which is not a multiplication problem?

1) Donuts come in packs of 6. I buy 8 packs. How many have I bought?



2) How many days in 8 weeks?



3) Tyger takes 9 minutes to run a mile. How long would it take him to run 6 miles at the same pace?



4) Bulbs come in packs of 12. How many bulbs in 5 packs?

5) A lighthouse flashes its light 8 times a minute. How many times would it flash in 6 minutes?



6) A spider has 8 legs. How many legs would 11 spiders have?



7) In a field there are 5 sheep and 12 cows. How many animals in total?

8) I buy 7 bunches of bananas. There are 6 bananas in each bunch. How many bananas have I bought?



Did you spot the
trick problem?



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Multiplication

20 Questions

NAME : _____

CLASS : _____

DATE : _____

1. $3 + 3 + 3 + 3$ is the same as....

☐ a) 5×3

☐ b) 4×3

☐ c) 3×3

☐ d) 4×4

2. There are 8 markers in a box. Parker has 3 boxes of markers. How many total markers does Parker have?

☐ a) 16

☐ b) 22

☐ c) 24

☐ d) 30

3. $5 \times 5 =$

☐ a) 25

☐ b) 20

☐ c) 55

☐ d) 30

4.



Lily has 9 pairs of socks. How many total socks does Lily have?

☐ a) 20

☐ b) 16

☐ c) 9

☐ d) 18

5. $7 \times 4 =$

☐ a) 27☐ b) 24☐ c) 28☐ d) 22

6. 3×5 is the same as...

☐ a) $5 + 5$ ☐ b) $5 + 5 + 5 + 5$ ☐ c) $5 + 5 + 5$ ☐ d) $3 + 3 + 3$

7. There are 7 days in a week. How many days are there in 3 weeks?

☐ a) 21☐ b) 14☐ c) 28☐ d) 22

8. $4 \times 4 =$

☐ a) 15☐ b) 8☐ c) 12☐ d) 16

9. When you multiply any number times 0, the answer is

☐ a) 0☐ b) 1☐ c) the other number☐ d) you can't multiply by 0

10. $4 \times 9 =$

☐ a) 35☐ b) 36☐ c) 37☐ d) 32

11. When you multiply by 2, the answer is always....

☐ a) even☐ b) odd

12. $8 \times 5 =$

☐ a) 85☐ c) 45☐ b) 58☐ d) 40

13. When you multiply by 5, the answer....

☐ a) always ends in 5☐ c) always ends in 0 OR 5☐ b) always ends in 0

14. $3 \times 3 =$

☐ a) 9☐ c) 8☐ b) 33☐ d) 6

15. When you multiply by 10, the answer...

☐ a) always ends in 0☐ b) can end in any number

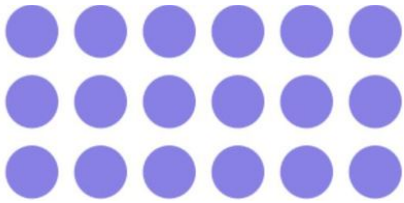
16. The first 5 multiples of 2 are...

☐ a) 2, 6, 8, 12, 16☐ c) 2, 8, 16, 20, 24☐ b) 2, 4, 6, 8, 10☐ d) 2, 3, 4, 5, 6

17. $3 \times 9 =$

☐ a) 30☐ c) 27☐ b) 39☐ d) 24

18.



This array represents...

☐ a) $3 \times 5 = 18$

☐ b) $3 \times 6 = 18$

☐ c) $6 \times 3 = 15$

☐ d) $3 + 6 = 9$

19. $2 \times 8 =$

☐ a) 28

☐ b) 18

☐ c) 16

☐ d) 14

20. Which of the following is a multiple of 3?

☐ a) 7

☐ b) 9

☐ c) 10

☐ d) 11

Answer Key

1. b
2. c
3. a
4. d
5. c

6. c
7. a
8. d
9. a
10. b

11. a
12. d
13. c
14. a
15. a

16. b
17. c
18. b
19. c
20. b

MULTIPLICATION TO 10x10

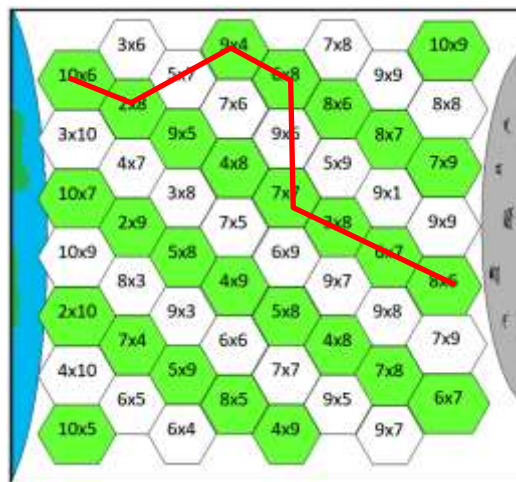
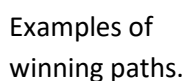
Age range: 3rd Grade+

Learning: Multiply with numbers to 10x10, strategy

- Each player will need 15-20 counters of their own color.

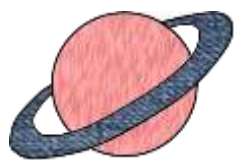
- Choose a multiplication you want to work out on one of the uncovered hexagons on the game board.
- Work out the answer in your head. Use a multiplication square (see appendix 3) to help you.
- Say the calculation and the answer.
- Your partner will check in their head (or using the multiplication strips).
- If you are right, you place a counter on the hexagon. Then it is your partner's turn. If you are wrong, you don't get to place a counter.
- The winner is the first person to complete an unbroken path of counters from the Earth to the Moon (path can go across, down, diagonally). See below.

- If you get an answer wrong, your partner can remove one of your counters from the board.

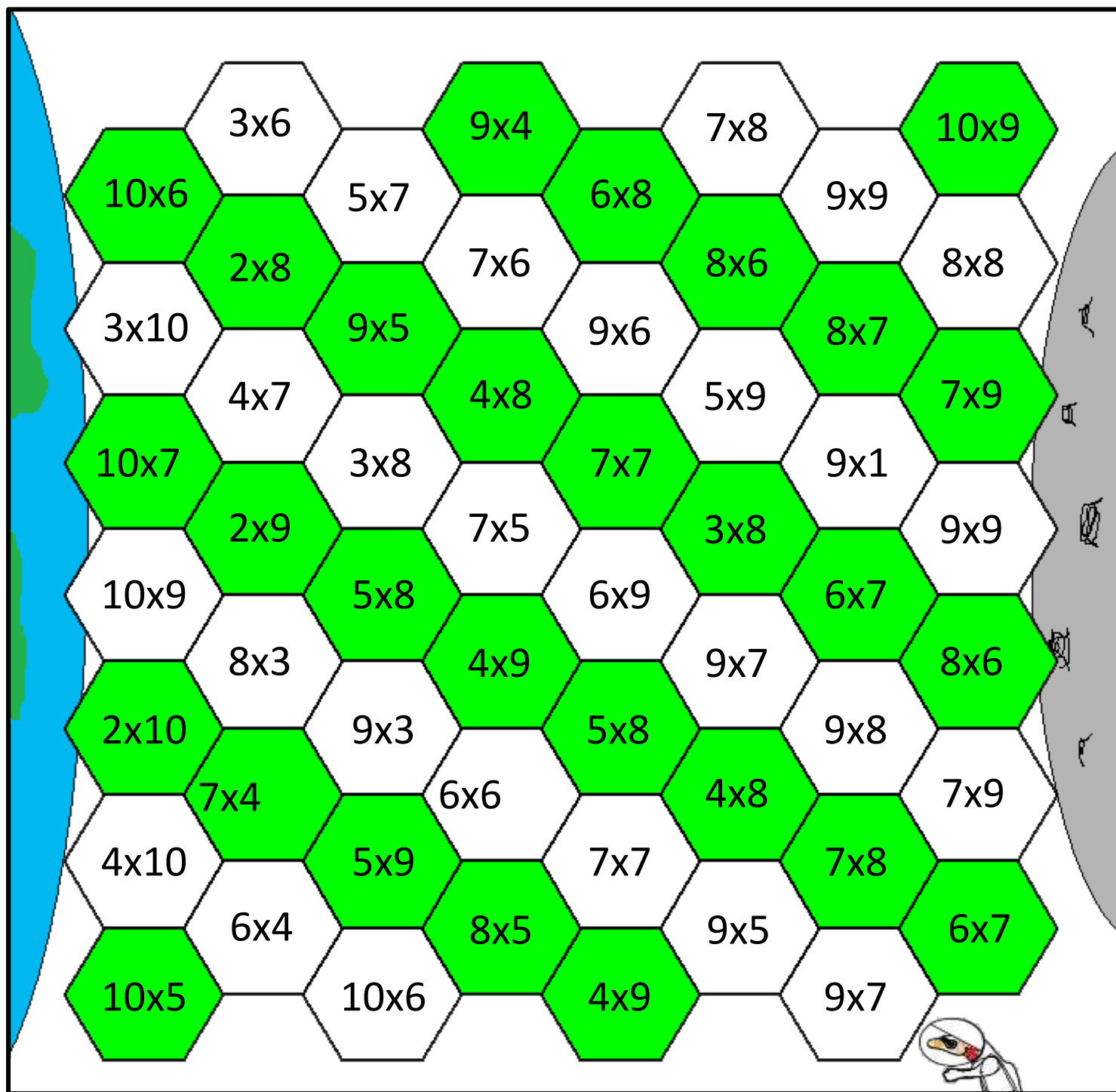
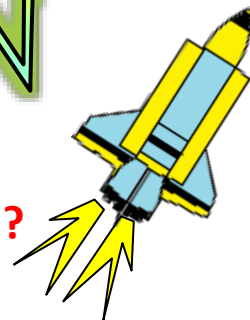


RACE TO THE MOON

MULTIPLICATION TO 10×10



Who will be first to get from Earth to the Moon?



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Multiplication: Find the Facts

Directions: Can you find all the 2s facts in the equation search? Solve the problems below and then find the facts in the equation search.

2	4	8	5	6	10	7	9	2	2
8	12	4	7	2	9	6	3	5	8
3	5	2	12	24	2	6	8	6	16
18	2	12	8	6	15	22	3	9	1
22	11	2	6	12	2	5	4	12	16
4	8	19	20	1	9	18	7	11	2
9	24	8	3	7	12	10	6	2	16
16	8	14	7	2	9	22	4	5	20
3	9	2	18	8	10	5	2	18	14
8	12	4	5	6	8	20	9	2	7

☐ $2 \times 2 =$

☐ $2 \times 5 =$

☐ $2 \times 8 =$

☐ $2 \times 11 =$

☐ $2 \times 3 =$

☐ $2 \times 6 =$

☐ $2 \times 9 =$

☐ $2 \times 12 =$

☐ $2 \times 4 =$

☐ $2 \times 7 =$

☐ $2 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 3s facts in the equation search? Solve the problems below and then find the facts in the equation search.

2	7	8	30	6	10	9	15	6	3
8	9	36	7	18	3	6	2	5	12
3	5	27	12	24	9	3	2	12	20
18	2	12	8	6	15	7	24	9	1
33	21	3	18	14	4	21	6	12	16
11	8	19	30	10	3	18	7	11	3
3	24	8	15	3	12	10	6	2	16
12	8	6	27	9	3	24	3	5	15
3	9	2	12	8	10	9	2	18	14
36	12	3	18	6	8	30	8	2	7

☐ $3 \times 2 =$

☐ $3 \times 5 =$

☐ $3 \times 8 =$

☐ $3 \times 11 =$

☐ $3 \times 3 =$

☐ $3 \times 6 =$

☐ $3 \times 9 =$

☐ $3 \times 12 =$

☐ $3 \times 4 =$

☐ $3 \times 7 =$

☐ $3 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 4s facts in the equation search? Solve the problems below and then find the facts in the equation search.

6	4	12	40	6	20	7	16	44	8
8	9	28	3	32	3	8	2	4	24
3	4	28	7	8	9	3	4	12	10
16	2	12	8	4	15	16	36	9	8
36	8	3	44	11	4	20	3	12	48
14	8	9	32	8	3	18	5	11	6
4	24	8	16	2	12	40	10	4	16
12	8	6	27	4	6	24	4	3	12
44	7	32	12	8	48	9	24	18	14
36	9	4	16	6	8	30	48	4	12

☐ $4 \times 2 =$

☐ $4 \times 5 =$

☐ $4 \times 8 =$

☐ $4 \times 11 =$

☐ $4 \times 3 =$

☐ $4 \times 6 =$

☐ $4 \times 9 =$

☐ $4 \times 12 =$

☐ $4 \times 4 =$

☐ $4 \times 7 =$

☐ $4 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 5s facts in the equation search? Solve the problems below and then find the facts in the equation search.

6	5	12	50	6	10	7	16	25	3
25	9	30	3	32	6	8	5	5	15
7	10	12	9	8	35	1	4	5	40
16	2	12	8	4	15	16	36	15	8
35	7	5	55	10	3	20	4	5	5
10	12	9	35	5	3	15	5	20	2
5	25	11	15	9	11	30	10	8	10
9	7	60	12	5	6	20	4	3	12
45	7	35	6	5	45	9	35	18	15
35	9	4	15	5	10	50	60	4	10

☐ $5 \times 2 =$

☐ $5 \times 5 =$

☐ $5 \times 8 =$

☐ $5 \times 11 =$

☐ $5 \times 3 =$

☐ $5 \times 6 =$

☐ $5 \times 9 =$

☐ $5 \times 12 =$

☐ $5 \times 4 =$

☐ $5 \times 7 =$

☐ $5 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 6s facts in the equation search? Solve the problems below and then find the facts in the equation search.

6	5	12	60	3	6	5	12	24	7
36	8	42	3	12	6	2	54	7	66
9	18	12	6	60	36	12	9	5	72
18	42	6	11	66	18	42	5	66	4
36	7	6	54	10	3	60	18	6	3
30	18	3	7	6	42	72	4	48	2
6	24	4	6	7	54	30	12	8	60
9	2	60	42	7	3	10	8	6	10
54	7	30	5	6	42	9	35	9	6
36	9	4	18	5	10	40	8	4	10

☐ $6 \times 2 =$

☐ $6 \times 5 =$

☐ $6 \times 8 =$

☐ $6 \times 11 =$

☐ $6 \times 3 =$

☐ $6 \times 6 =$

☐ $6 \times 9 =$

☐ $6 \times 12 =$

☐ $6 \times 4 =$

☐ $6 \times 7 =$

☐ $6 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 7s facts in the equation search? Solve the problems below and then find the facts in the equation search.

7	2	14	70	3	6	8	14	21	9
35	4	42	9	21	7	5	56	7	84
49	14	8	84	28	7	21	8	77	70
28	9	12	14	77	4	42	7	56	4
35	7	6	56	10	5	63	35	7	9
70	14	5	7	3	49	9	4	11	2
7	28	4	7	2	56	7	12	77	35
9	2	70	49	7	4	7	3	1	14
56	9	49	3	7	10	8	35	9	7
35	7	5	14	3	21	70	7	6	42

☐ $7 \times 2 =$

☐ $7 \times 5 =$

☐ $7 \times 8 =$

☐ $7 \times 11 =$

☐ $7 \times 3 =$

☐ $7 \times 6 =$

☐ $7 \times 9 =$

☐ $7 \times 12 =$

☐ $7 \times 4 =$

☐ $7 \times 7 =$

☐ $7 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 8s facts in the equation search? Solve the problems below and then find the facts in the equation search.

8	2	16	64	3	6	8	24	21	7
32	6	48	9	24	8	5	72	7	80
48	6	8	88	96	7	24	9	8	9
24	9	12	16	32	4	40	8	56	6
32	10	6	40	5	8	64	32	8	9
80	1	12	7	3	8	9	24	11	2
7	32	8	7	5	64	7	12	88	56
9	7	8	10	80	4	8	3	1	12
56	9	48	11	5	96	12	32	7	2
8	40	5	16	9	24	80	8	4	32

☐ $8 \times 2 =$

☐ $8 \times 5 =$

☐ $8 \times 8 =$

☐ $8 \times 11 =$

☐ $8 \times 3 =$

☐ $8 \times 6 =$

☐ $8 \times 9 =$

☐ $8 \times 12 =$

☐ $8 \times 4 =$

☐ $8 \times 7 =$

☐ $8 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 9s facts in the equation search? Solve the problems below and then find the facts in the equation search.

9	2	18	36	3	7	4	27	12	9
36	5	63	9	45	9	5	90	7	99
54	6	9	99	7	11	27	10	1	5
7	9	11	18	72	54	9	9	45	6
36	12	6	9	9	3	63	99	1	9
9	108	12	8	7	4	9	27	11	6
7	36	9	12	5	63	36	12	9	54
9	7	8	18	90	3	8	7	3	12
54	9	72	1	45	5	9	36	8	1
8	3	5	18	9	27	81	9	9	36

☐ $9 \times 2 =$

☐ $9 \times 5 =$

☐ $9 \times 8 =$

☐ $9 \times 11 =$

☐ $9 \times 3 =$

☐ $9 \times 6 =$

☐ $9 \times 9 =$

☐ $9 \times 12 =$

☐ $9 \times 4 =$

☐ $9 \times 7 =$

☐ $9 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 10s facts in the equation search? Solve the problems below and then find the facts in the equation search.

10 2 1 10 3 7 4 120 12 10
40 5 60 9 40 9 2 90 11 90
10 3 30 90 1 10 20 50 1 7
80 8 10 30 70 50 6 2 4 6
30 1 5 6 20 3 60 6 10 9
6 110 40 3 100 1 70 20 120 6
7 30 9 4 10 7 30 12 2 50
9 7 8 60 10 3 8 7 3 10
50 9 70 4 40 5 9 70 8 1
120 2 3 10 5 50 80 10 11 110

☐ $10 \times 2 =$

☐ $10 \times 5 =$

☐ $10 \times 8 =$

☐ $10 \times 11 =$

☐ $10 \times 3 =$

☐ $10 \times 6 =$

☐ $10 \times 9 =$

☐ $10 \times 12 =$

☐ $10 \times 4 =$

☐ $10 \times 7 =$

☐ $10 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 11s facts in the equation search? Solve the problems below and then find the facts in the equation search.

11 3 1 22 3 7 44 12 33 10
44 5 60 9 44 9 2 9 11 99
10 3 33 99 1 121 22 55 6 7
88 8 9 30 11 10 110 2 66 6
33 11 3 6 22 3 66 6 10 11
6 132 40 3 66 9 70 20 11 6
7 33 22 2 11 5 55 121 2 55
9 11 8 88 10 7 6 7 9 11
55 9 70 4 40 5 77 70 8 12
121 2 3 11 4 44 88 10 11 132

☐ $11 \times 2 =$

☐ $11 \times 5 =$

☐ $11 \times 8 =$

☐ $11 \times 11 =$

☐ $11 \times 3 =$

☐ $11 \times 6 =$

☐ $11 \times 9 =$

☐ $11 \times 12 =$

☐ $11 \times 4 =$

☐ $11 \times 7 =$

☐ $11 \times 10 =$

Multiplication: Find the Facts

Directions: Can you find all the 12s facts in the equation search? Solve the problems below and then find the facts in the equation search.

12 3 1 84 3 7 48 12 36 6
72 5 60 9 48 4 12 9 11 96
10 3 108 96 1 12 5 60 12 8
8 24 12 36 72 1 96 9 48 12
36 11 3 6 24 3 108 6 12 10
6 120 60 3 72 8 7 24 11 3
7 36 3 12 12 5 84 108 2 55
5 12 7 144 10 7 12 11 132 12
4 7 24 3 12 5 84 70 8 12
120 10 12 11 4 84 96 10 11 144

☐ $12 \times 2 =$

☐ $12 \times 5 =$

☐ $12 \times 8 =$

☐ $12 \times 11 =$

☐ $12 \times 3 =$

☐ $12 \times 6 =$

☐ $12 \times 9 =$

☐ $12 \times 12 =$

☐ $12 \times 4 =$

☐ $12 \times 7 =$

☐ $12 \times 10 =$



[10,15,20,25] = Green



[18,24,36] = Teal



[8,12] = Purple

Weather Word Search

Name _____ Date _____

H F Q O G C F E T L H E E A Y Z C E
E S O O W R P H H Y C R S U N N Y N
A S F R E L I A H K U Q F A S G A I
T U C E E T O H K T V Y E P D S S F
Z C Z C N C M V A T O R N A D O E F
C E D I A E A R R M G Q J N C M A D
M L A N O R E S P R E S S U R E S U
R R O L I P S F T P L A F O P L O O
O O A U M W U A E P K M Y A H W N L
T G C E D G N L F H Q C O L D S Q C
S R T X C Y W N C N Q F H J A N R O
A E H K K K K U G E S L X M D O J B
Q Y L K Z C T M D T N Y K E Y W C I

CLOUD
FINE
FREEZE
HOT
SEASON
SUN
TORNADO

CLOUDY
FOG
HAIL
PRESSURE
SNOW
SUNNY
WIND

COLD
FORECAST
HEAT
RAIN
STORM
TEMPERATURE

1x

1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
1 x 10 = 10
1 x 11 = 11
1 x 12 = 12

2x

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
2 x 11 = 22
2 x 12 = 24

3x

3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
3 x 10 = 30
3 x 11 = 33
3 x 12 = 36

4x

4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40
4 x 11 = 44
4 x 12 = 48

5x

5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
5 x 11 = 55
5 x 12 = 60

6x

6 x 1 = 6
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30
6 x 6 = 36
6 x 7 = 42
6 x 8 = 48
6 x 9 = 54
6 x 10 = 60
6 x 11 = 66
6 x 12 = 72

7x

7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
7 x 11 = 77
7 x 12 = 84

8x

8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
8 x 9 = 72
8 x 10 = 80
8 x 11 = 88
8 x 12 = 96

9x

9 x 1 = 9
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54
9 x 7 = 63
9 x 8 = 72
9 x 9 = 81
9 x 10 = 90
9 x 11 = 99
9 x 12 = 108

10x

10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50
10 x 6 = 60
10 x 7 = 70
10 x 8 = 80
10 x 9 = 90
10 x 10 = 100
10 x 11 = 110
10 x 12 = 120

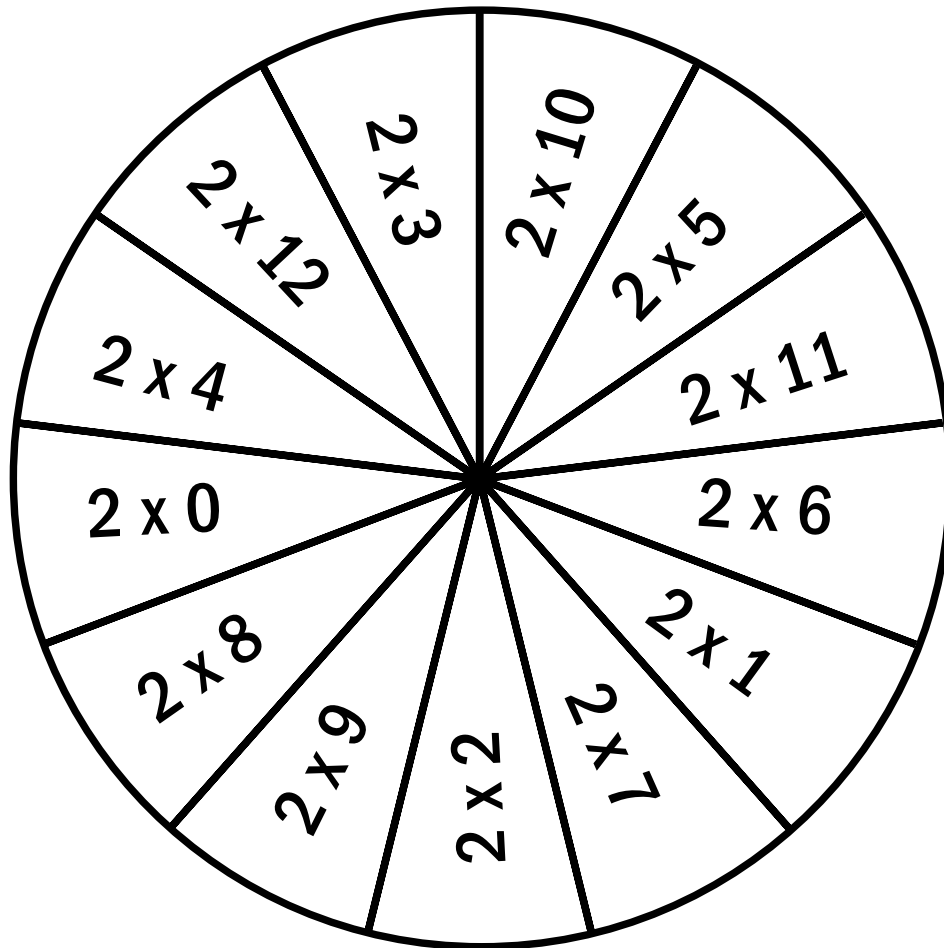
11x

11 x 1 = 11
11 x 2 = 22
11 x 3 = 33
11 x 4 = 44
11 x 5 = 55
11 x 6 = 66
11 x 7 = 77
11 x 8 = 88
11 x 9 = 99
11 x 10 = 110
11 x 11 = 121
11 x 12 = 132

12x

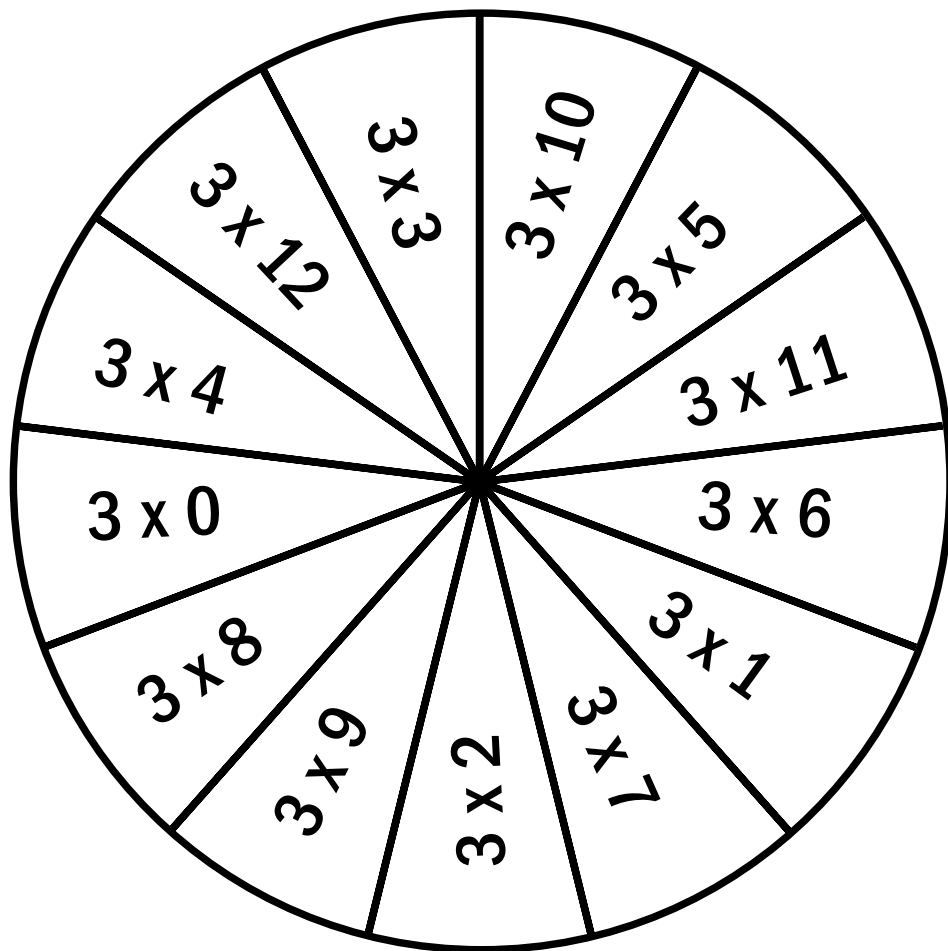
12 x 1 = 12
12 x 2 = 24
12 x 3 = 36
12 x 4 = 48
12 x 5 = 60
12 x 6 = 72
12 x 7 = 84
12 x 8 = 96
12 x 9 = 108
12 x 10 = 120
12 x 11 = 132
12 x 12 = 144

2 TIMES TABLE SPIN



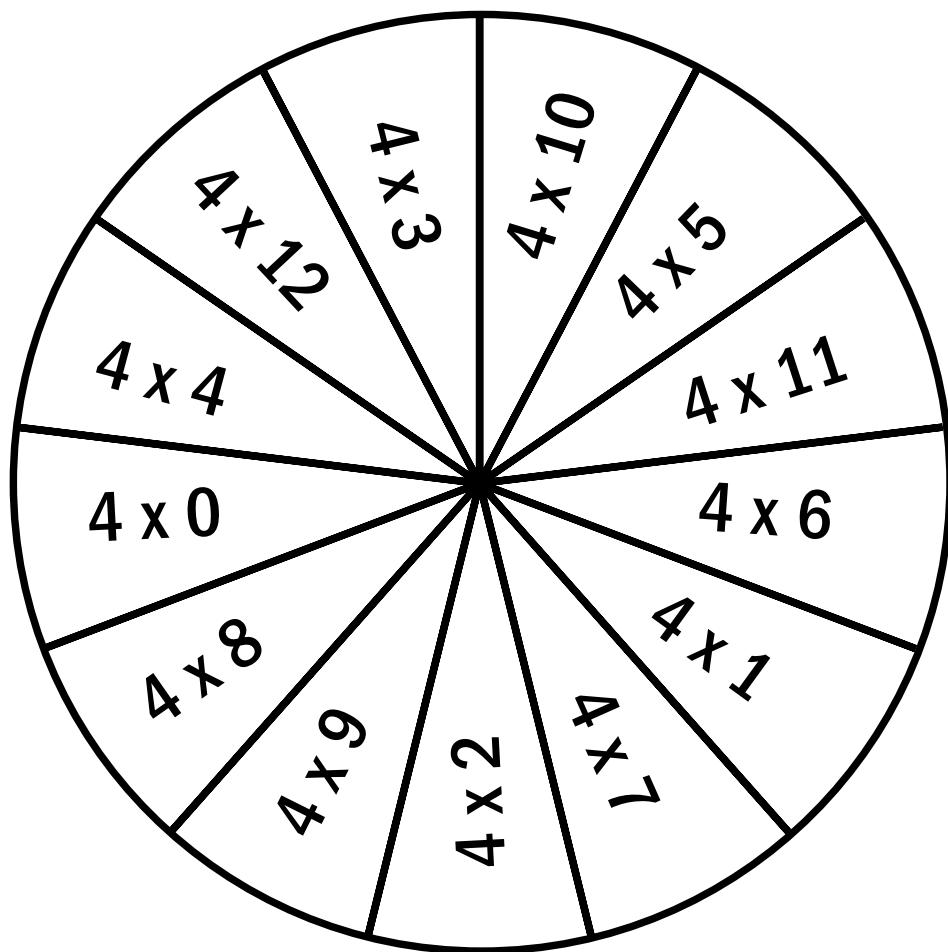
___ x ___ = 8	___ x ___ = 12
___ x ___ = 18	___ x ___ = 4
___ x ___ = 2	___ x ___ = 10
___ x ___ = 22	___ x ___ = 6
___ x ___ = 16	___ x ___ = 24
___ x ___ = 20	___ x ___ = 0
___ x ___ = 14	___ x ___ = 14
___ x ___ = 24	___ x ___ = 22
___ x ___ = 18	___ x ___ = 6
___ x ___ = 16	___ x ___ = 26
___ x ___ = 12	___ x ___ = 4

3 TIMES TABLE SPIN



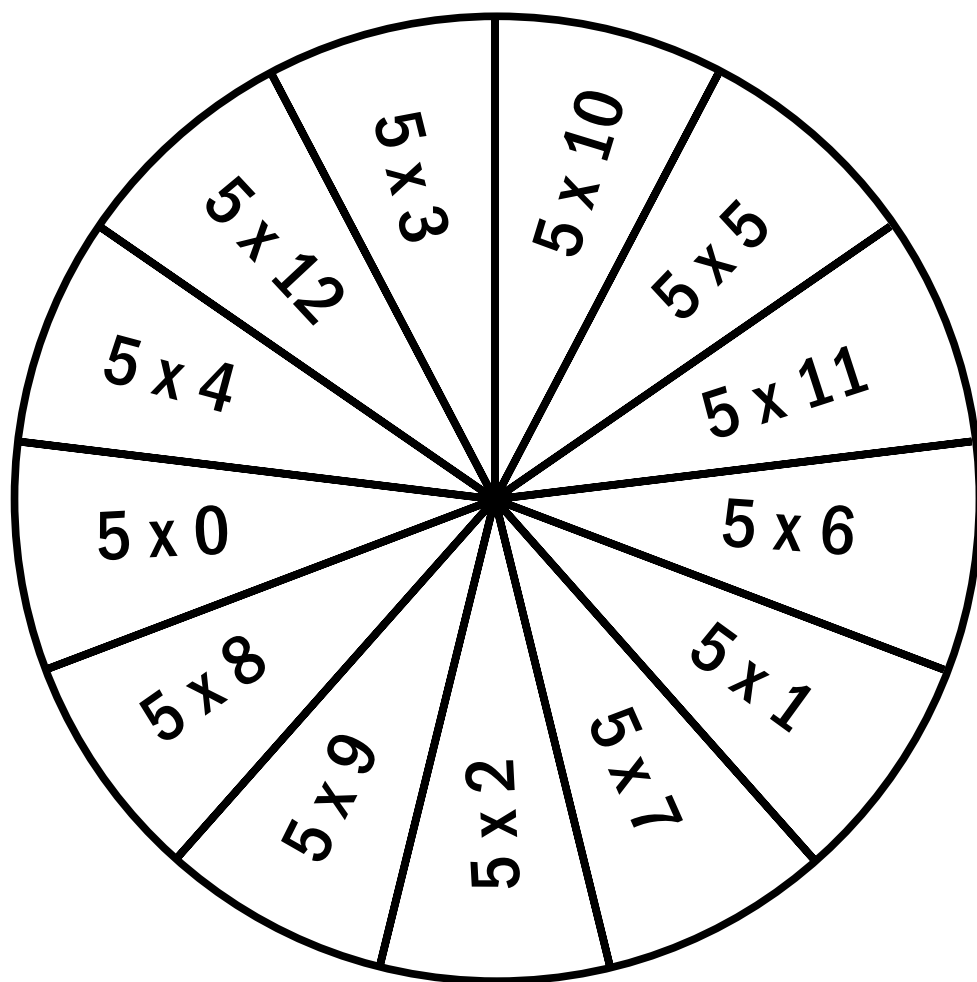
___ x ___ = 12	___ x ___ = 18
___ x ___ = 6	___ x ___ = 27
___ x ___ = 15	___ x ___ = 33
___ x ___ = 9	___ x ___ = 36
___ x ___ = 21	___ x ___ = 30
___ x ___ = 24	___ x ___ = 3
___ x ___ = 36	___ x ___ = 21
___ x ___ = 33	___ x ___ = 18
___ x ___ = 24	___ x ___ = 27
___ x ___ = 0	___ x ___ = 9
___ x ___ = 30	___ x ___ = 15

4 TIMES TABLE SPIN



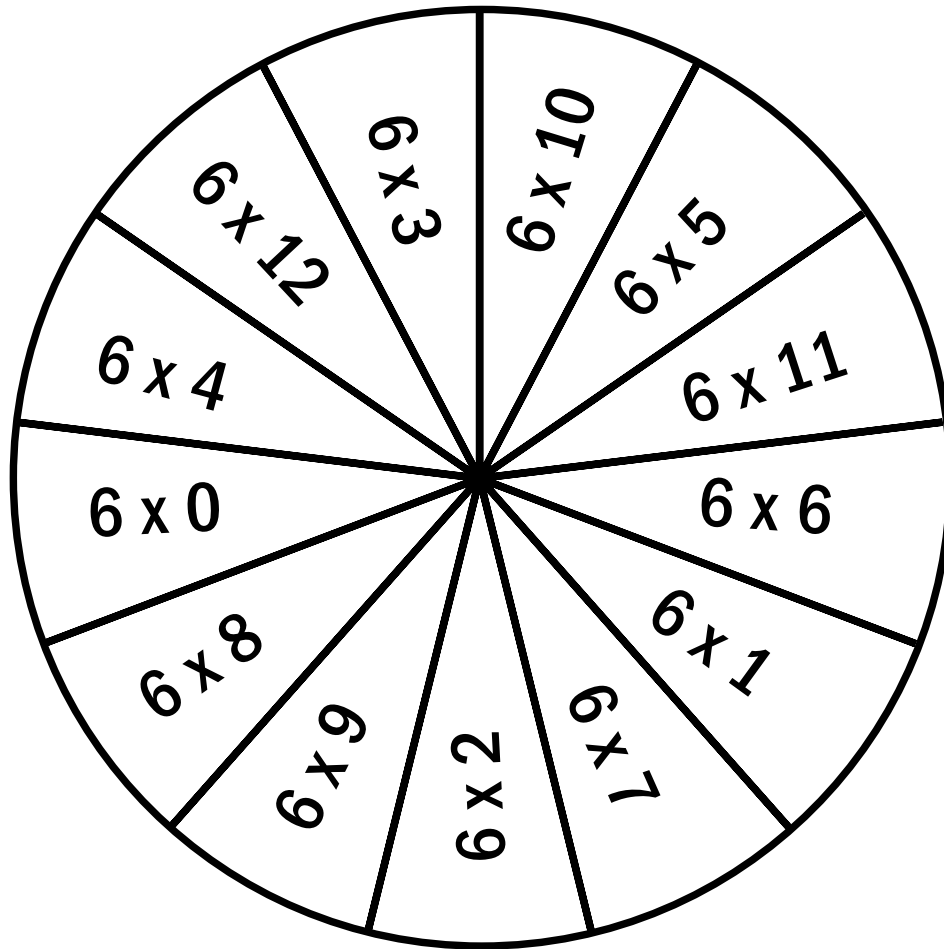
___ x ___ = 12	___ x ___ = 24
___ x ___ = 32	___ x ___ = 44
___ x ___ = 16	___ x ___ = 28
___ x ___ = 20	___ x ___ = 48
___ x ___ = 40	___ x ___ = 36
___ x ___ = 8	___ x ___ = 20
___ x ___ = 0	___ x ___ = 32
___ x ___ = 44	___ x ___ = 36
___ x ___ = 4	___ x ___ = 28
___ x ___ = 48	___ x ___ = 24
___ x ___ = 40	___ x ___ = 8

5 TIMES TABLE SPIN



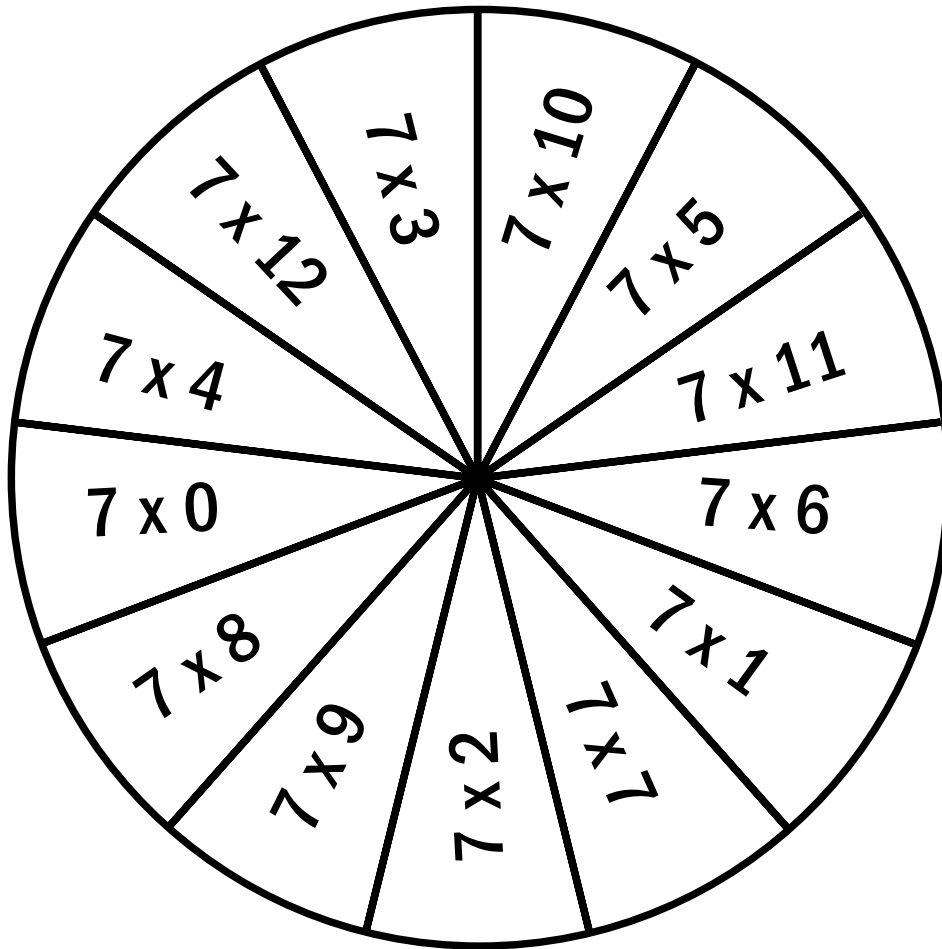
___ x ___ = 35	___ x ___ = 20
___ x ___ = 50	___ x ___ = 10
___ x ___ = 45	___ x ___ = 0
___ x ___ = 15	___ x ___ = 55
___ x ___ = 30	___ x ___ = 60
___ x ___ = 25	___ x ___ = 40
___ x ___ = 5	___ x ___ = 30
___ x ___ = 60	___ x ___ = 40
___ x ___ = 15	___ x ___ = 45
___ x ___ = 55	___ x ___ = 35
___ x ___ = 10	___ x ___ = 25

6 TIMES TABLE SPIN



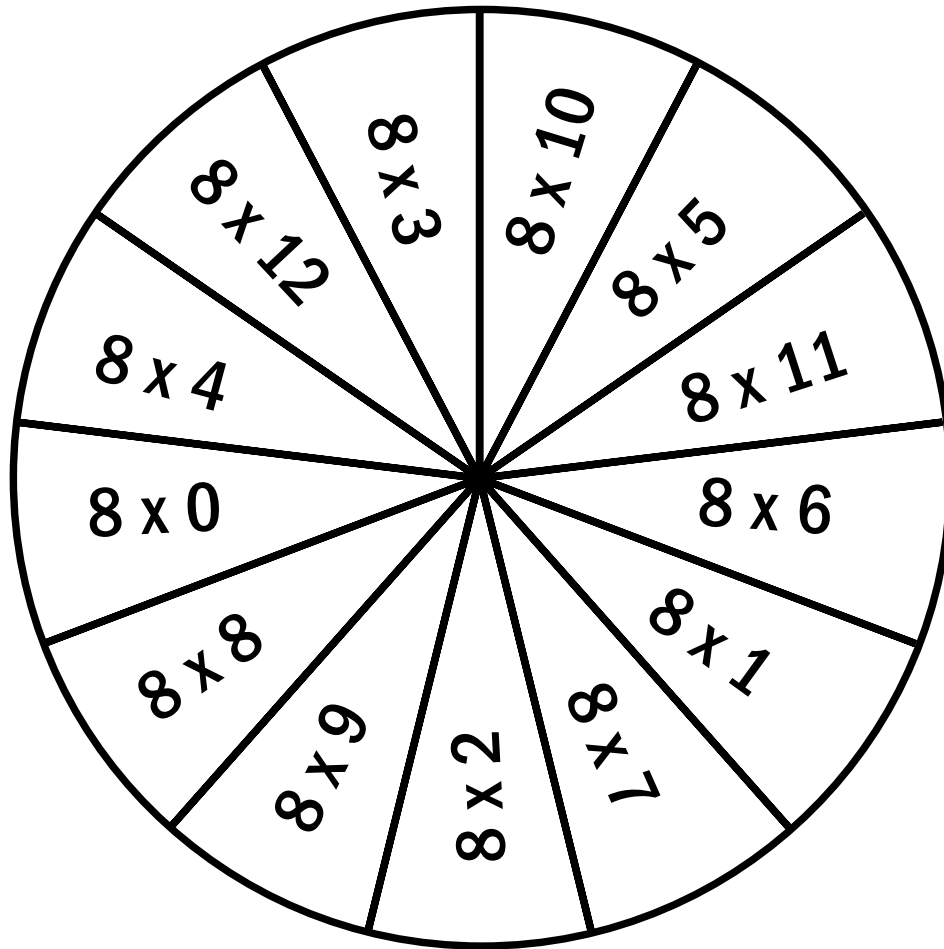
___ x ___ = 66	___ x ___ = 12
___ x ___ = 24	___ x ___ = 42
___ x ___ = 60	___ x ___ = 30
___ x ___ = 72	___ x ___ = 18
___ x ___ = 36	___ x ___ = 48
___ x ___ = 54	___ x ___ = 0
___ x ___ = 6	___ x ___ = 36
___ x ___ = 54	___ x ___ = 66
___ x ___ = 18	___ x ___ = 72
___ x ___ = 12	___ x ___ = 48
___ x ___ = 60	___ x ___ = 24

7 TIMES TABLE SPIN



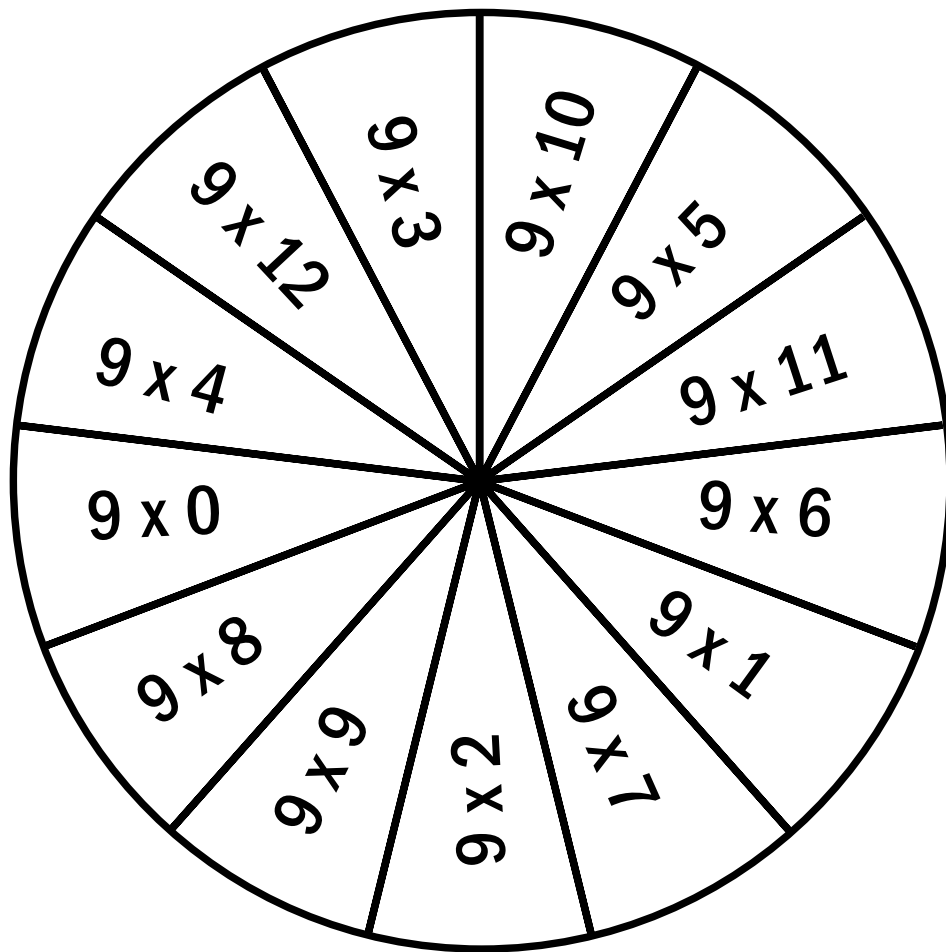
___ x ___ = 56	___ x ___ = 70
___ x ___ = 21	___ x ___ = 42
___ x ___ = 84	___ x ___ = 35
___ x ___ = 63	___ x ___ = 77
___ x ___ = 14	___ x ___ = 7
___ x ___ = 0	___ x ___ = 28
___ x ___ = 49	___ x ___ = 21
___ x ___ = 63	___ x ___ = 42
___ x ___ = 70	___ x ___ = 84
___ x ___ = 77	___ x ___ = 49
___ x ___ = 35	___ x ___ = 56

8 TIMES TABLE SPIN



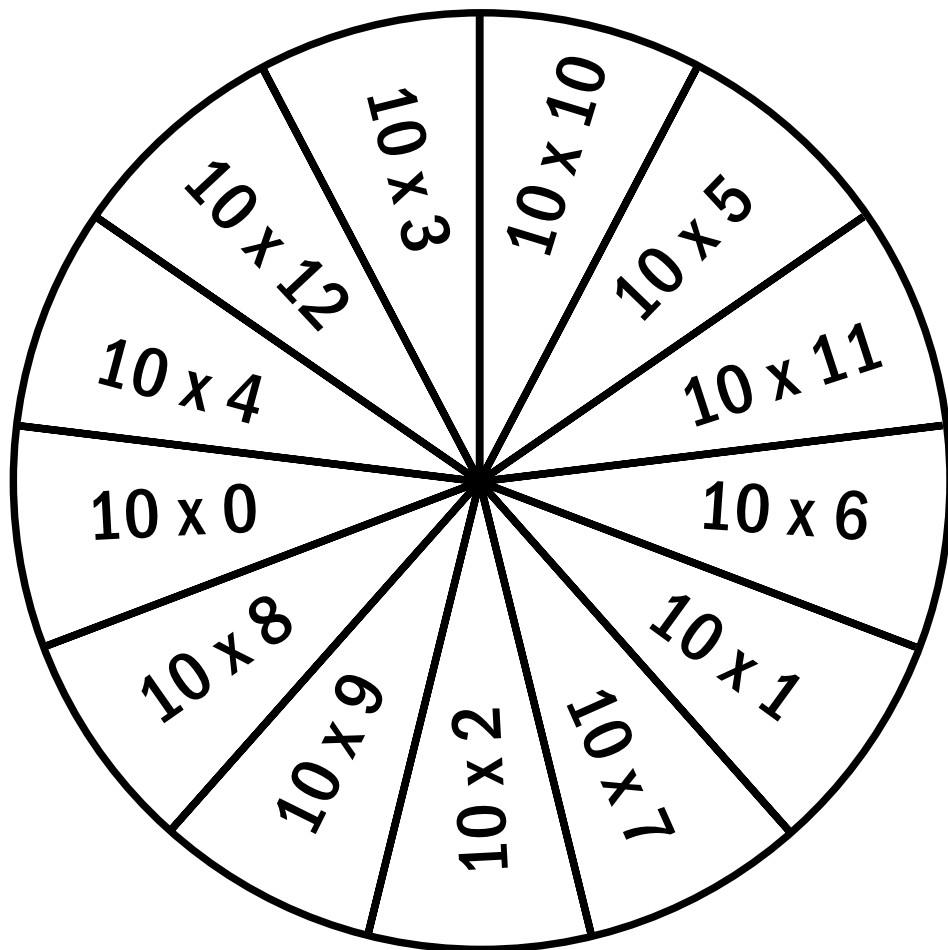
___ x ___ = 40	___ x ___ = 72
___ x ___ = 16	___ x ___ = 88
___ x ___ = 48	___ x ___ = 8
___ x ___ = 64	___ x ___ = 80
___ x ___ = 96	___ x ___ = 24
___ x ___ = 0	___ x ___ = 32
___ x ___ = 56	___ x ___ = 48
___ x ___ = 72	___ x ___ = 88
___ x ___ = 32	___ x ___ = 96
___ x ___ = 24	___ x ___ = 64
___ x ___ = 80	___ x ___ = 56

9 TIMES TABLE SPIN



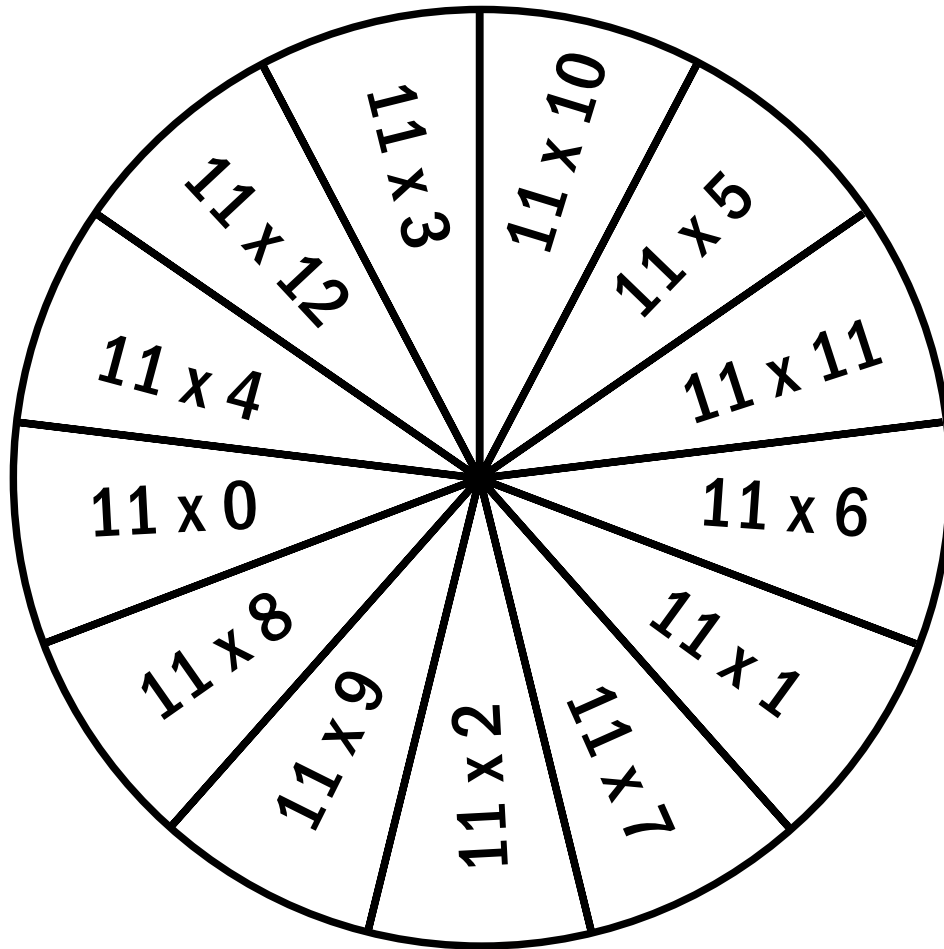
___ x ___ = 63	___ x ___ = 9
___ x ___ = 108	___ x ___ = 90
___ x ___ = 54	___ x ___ = 27
___ x ___ = 99	___ x ___ = 18
___ x ___ = 81	___ x ___ = 72
___ x ___ = 45	___ x ___ = 0
___ x ___ = 27	___ x ___ = 81
___ x ___ = 108	___ x ___ = 63
___ x ___ = 18	___ x ___ = 99
___ x ___ = 72	___ x ___ = 90
___ x ___ = 54	___ x ___ = 36

10 TIMES TABLE SPIN



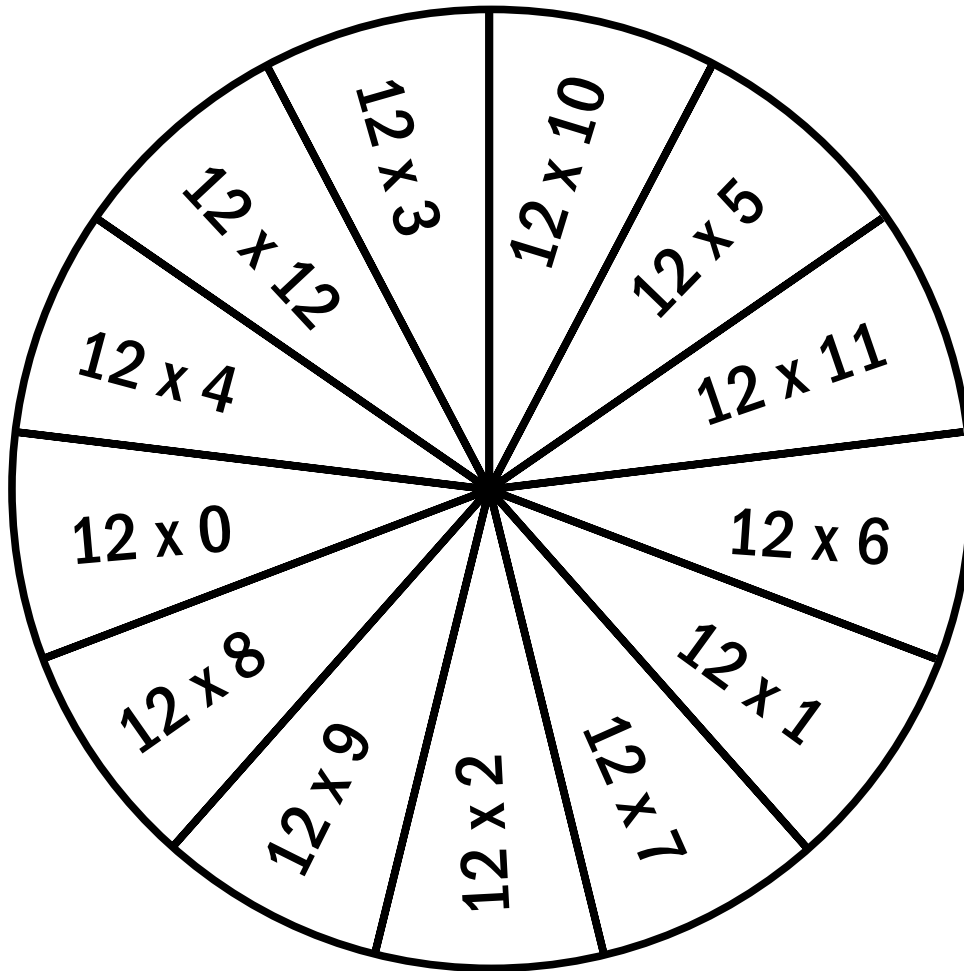
___ x ___ = 90	___ x ___ = 20
___ x ___ = 60	___ x ___ = 110
___ x ___ = 50	___ x ___ = 100
___ x ___ = 30	___ x ___ = 80
___ x ___ = 120	___ x ___ = 70
___ x ___ = 10	___ x ___ = 40
___ x ___ = 0	___ x ___ = 100
___ x ___ = 120	___ x ___ = 30
___ x ___ = 70	___ x ___ = 90
___ x ___ = 110	___ x ___ = 40
___ x ___ = 60	___ x ___ = 80

11 TIMES TABLE SPIN



___ x ___ = 77	___ x ___ = 22
___ x ___ = 11	___ x ___ = 0
___ x ___ = 99	___ x ___ = 121
___ x ___ = 66	___ x ___ = 132
___ x ___ = 44	___ x ___ = 55
___ x ___ = 88	___ x ___ = 110
___ x ___ = 33	___ x ___ = 77
___ x ___ = 132	___ x ___ = 121
___ x ___ = 22	___ x ___ = 66
___ x ___ = 110	___ x ___ = 55
___ x ___ = 99	___ x ___ = 44

12 TIMES TABLE SPIN



___ x ___ = 120	___ x ___ = 24
___ x ___ = 60	___ x ___ = 108
___ x ___ = 36	___ x ___ = 144
___ x ___ = 96	___ x ___ = 132
___ x ___ = 84	___ x ___ = 48
___ x ___ = 12	___ x ___ = 72
___ x ___ = 0	___ x ___ = 144
___ x ___ = 60	___ x ___ = 120
___ x ___ = 132	___ x ___ = 48
___ x ___ = 108	___ x ___ = 36
___ x ___ = 12	___ x ___ = 84