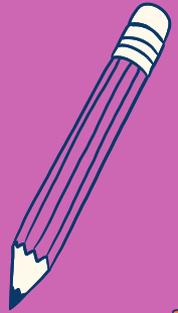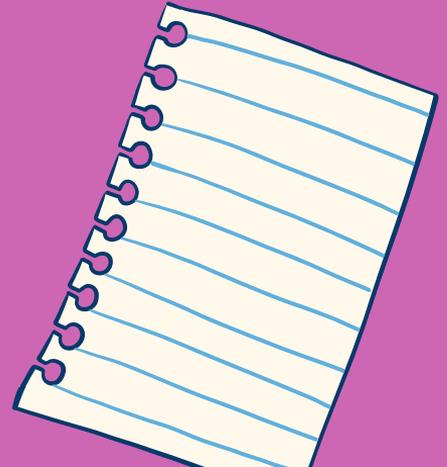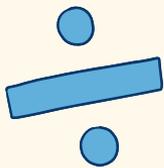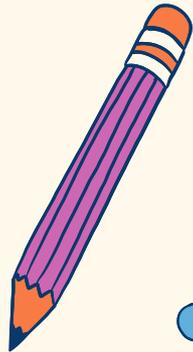# G5 Elite EOT3 Exam Coverage

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

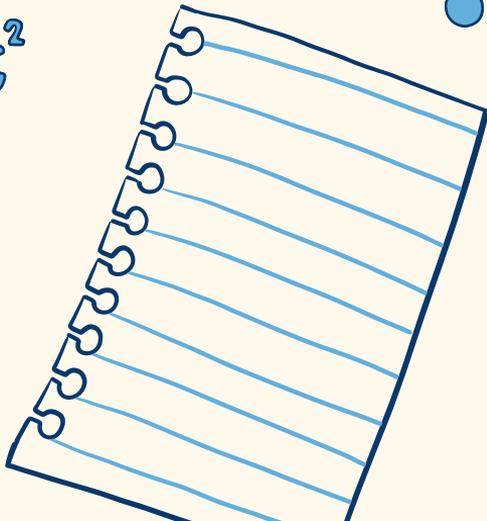$$a^2 + b^2 = c^2$$

$$\div$$
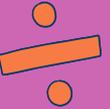
Part 1

LO: Dividing natural numbers

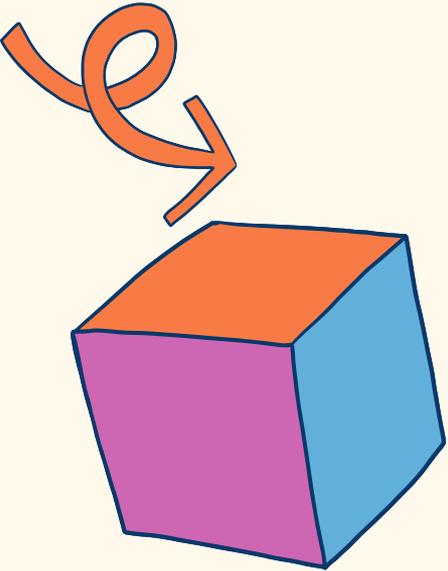**Use partial quotients to solve.**

1. $756 \div 12 =$ _____

2. $825 \div 58 =$ _____

3. $2{,}366 \div 26 =$ _____

4. $3{,}535 \div 82 =$ _____

8. A farmer pours 3 pounds of chicken feed equally into 4 bags. What is the weight of the chicken feed in each bag?

   A $\frac{3}{4}$ pound

   B. $1\frac{3}{4}$ pounds

   C. $\frac{4}{3}$ pounds

   D. $1\frac{1}{4}$ pounds

9. An artist divides 4 pounds of clay equally into 3 containers. What is the weight of the clay in each container? Circle all correct answers.

   A. $1\frac{1}{4}$ pounds

   B. $1\frac{1}{3}$ pounds

   C. $\frac{3}{4}$ pound

   D $\frac{4}{3}$ pounds

10. Aki pours the same amount of aquarium pebbles from this bag into each of 3 aquariums. What is the weight of the pebbles in each aquarium?

7 lb
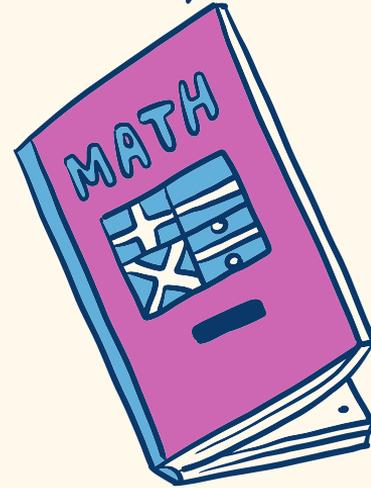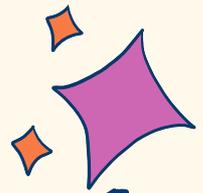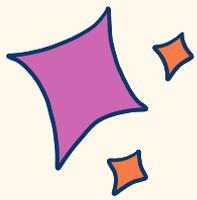
LO: Use the relationship between units of time to convert measurements (p 169)

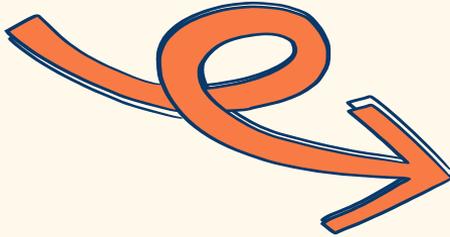Which operation will you use for the conversion? Explain your reasoning.

1. cups to fluid ounces   2. hours to days

LO: Interpret line plots (p 181)

This line plot shows the lengths of various mice from nose to the tip of the tail. Use the line plot to answer the questions.

Mice Length (in inches)
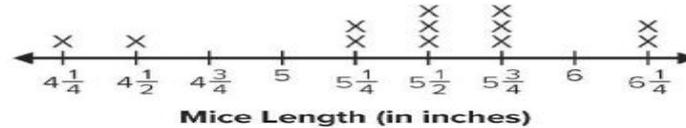
1. How many mice are in the data set?

2. How long is the shortest mouse?

3. How long is the longest mouse?

4. Which measurement or measurements occurred the most often?

5. Which measurement or measurements occur the least often?

6. How many mice are longer than 5 inches?

7. How many mice are shorter than 5 inches?

8. What is the difference in inches between the longest and the shortest mice?
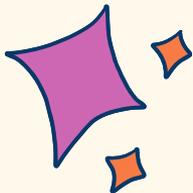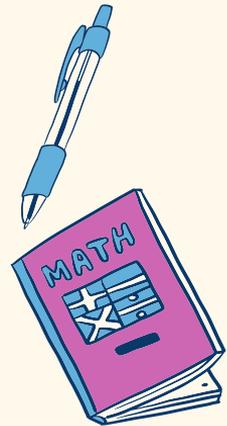
Use the coordinate plane to answer exercises 1–7.

1. What ordered pair describes point *W*?
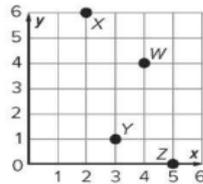
2. What ordered pair describes point *X*?

3. What ordered pair describes point *Y*?

4. What ordered pair describes point *Z*?

5. What ordered pair describes the origin?

6. How did you find the *x*-coordinate for each ordered pair?

7. How did you find the *y*-coordinate for each ordered pair?
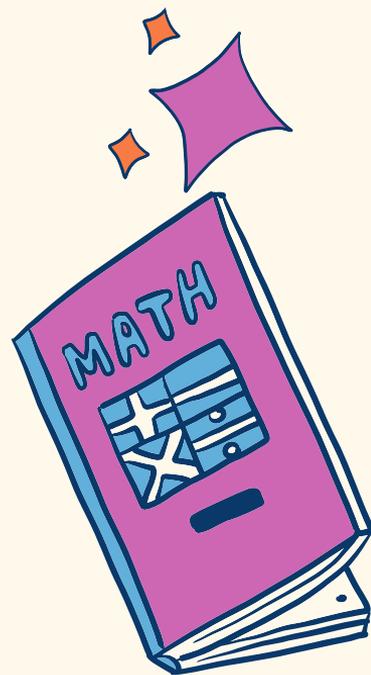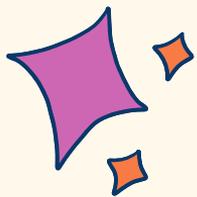
LO: Classify triangles into categories and subcategories based on their properties (p 211)

Classify each triangle by using their properties.

1.

2.

3.

4.

5.

6.

7.
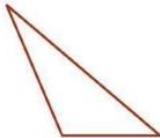
8.
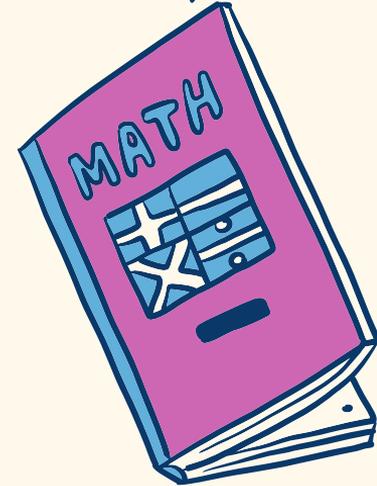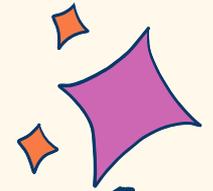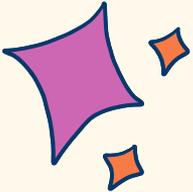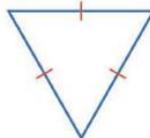
LO: Name quadrilaterals based on their properties (p 215)

Classify each figure by using their properties.
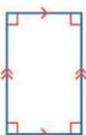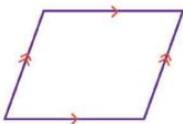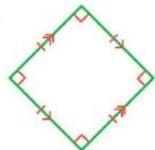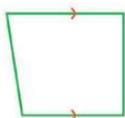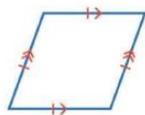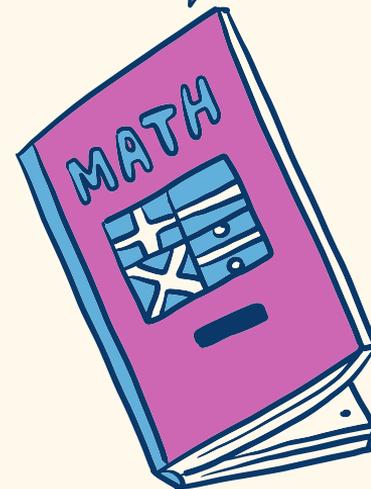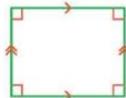
1.

2.

3.

4.

5.

6.

7.

8.
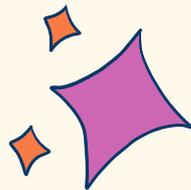
What numerical expression represents the description?

1. Divide 40 by 5. Then, subtract 2.

2. Multiply 4 and 8. Then, add 7.

3. Add $2\frac{1}{2}$ and $4\frac{2}{3}$. Then, subtract $\frac{1}{8}$.

4. Add 4.8 and 5.6. Then, subtract the sum from 16.9.

5. Subtract $4\frac{1}{4}$ from $10\frac{2}{5}$. Then, divide by 3.

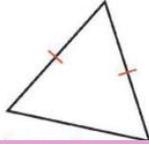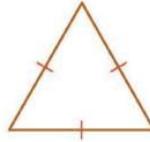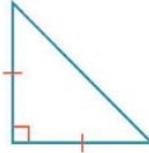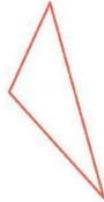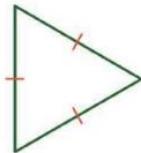6. Subtract 8 from 32. Then, divide 48 by the difference.

7. Add 6.7 and 8.25. Then, multiply by 11.2.

8. Divide 24 by 6. Multiply 5 and 7. Then, add the quotient and the product.

10. What numerical expression represents *three more than seven?* (Lesson 14-1)

11. What operation is performed first? (Lesson 14-3)

$8 + 16 \div 4 - 2$

12. What are the rules for Pattern C and Pattern D? What is the relationship between the corresponding terms of Pattern C and Pattern D? (Lesson 14-5)

Pattern C	Pattern D
0	0
1	12
2	24
3	36
4	48

13. What is a verbal description for the numerical expression $100 + (5 \times 10)$? (Lesson 14-2)

14. What expression represents *twelve less than eighteen?* (Lesson 14-1)
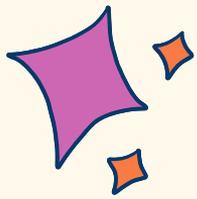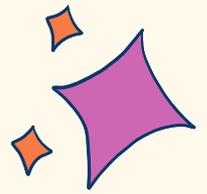
Find the difference. Show your work.

1. $75.3 - 9.06 =$ _____

3. $84.2 - 19.05 =$ _____

2. $40.82 - 5.7 =$ _____

4. $40.58 - 3.9 =$ _____
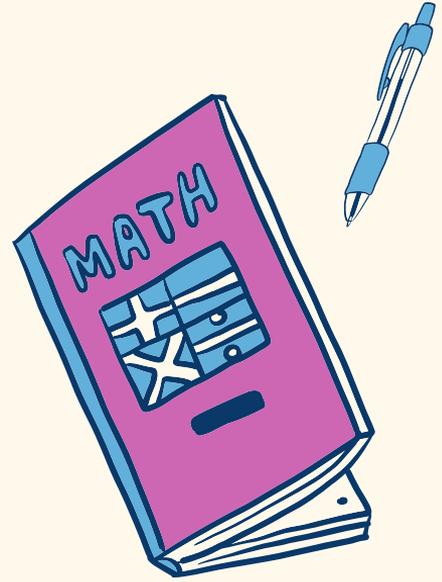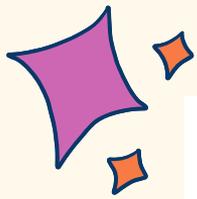
LO: Multiply Natural number

Find the product

$$562 \times 14$$

$$173 \times 26$$

$$210 \times 34$$

$$467 \times 55$$

$$632 \times 18$$

$$1{,}786 \times 62$$
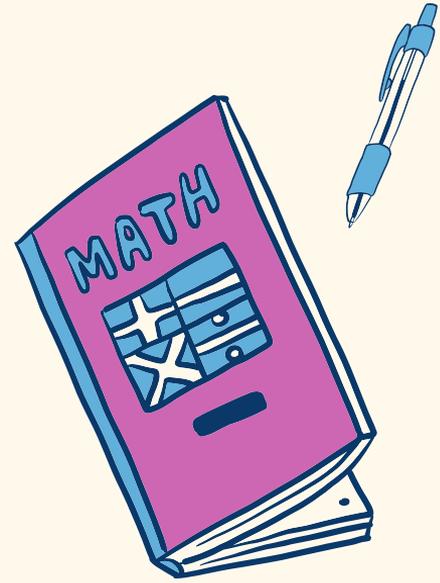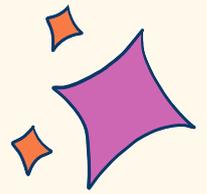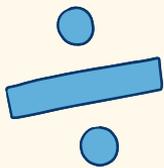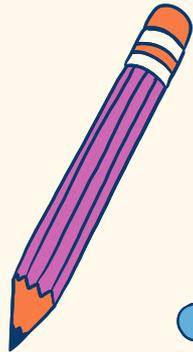
Part 2
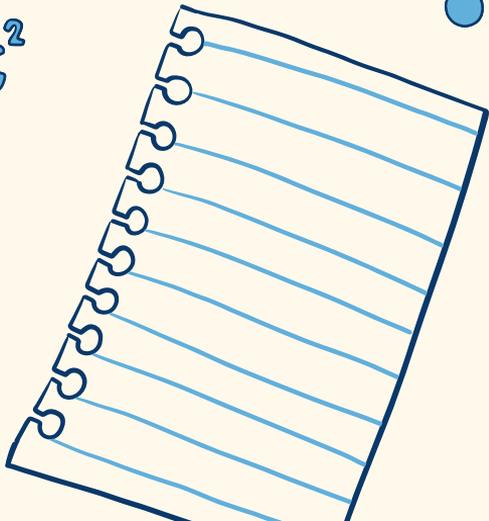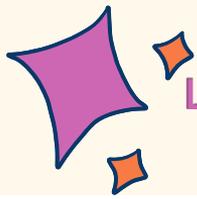
10. Keri is making trail mix that contains $\frac{1}{3}$ cup of sunflower seeds per serving. How many servings can she make with this bag?

2 cups

11. A clock chimes every $\frac{1}{4}$ hour. How many times will the clock chime in 6 hours?

12. Mia hiked 4 miles. There were trail markers every $\frac{1}{10}$ mile. How many trail markers did Mia see during her hike?

13. **STEM Connection** Poppy is visiting a park that is 15 acres. The park is divided into sections that are each $\frac{1}{3}$ acre. How many sections does the park have?

14. Jaxon has 10 gallons of punch. He pours the punch into pitchers that each hold $\frac{1}{2}$ gallon. How many pitchers does Jaxon use?
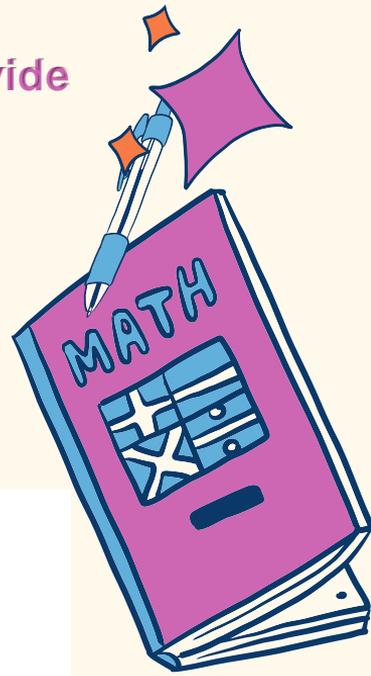
What is the quotient? Use a representation to solve.

1. $\frac{1}{2} \div 4 = $ _____

   A. $\frac{1}{12}$

   B. $\frac{4}{3}$

   C. $\frac{1}{16}$

   D. $\frac{1}{7}$

2. $\frac{1}{2} \div 9 = $ _____

   A. $\frac{1}{11}$

   B. $\frac{9}{2}$

   C. $\frac{1}{18}$

   D. $\frac{1}{20}$

3. $\frac{1}{8} \div 3 = $ _____

4. $\frac{1}{4} \div 2 = $ _____

5. $\frac{1}{5} \div 5 = $ _____

6. $\frac{1}{3} \div 2 = $ _____
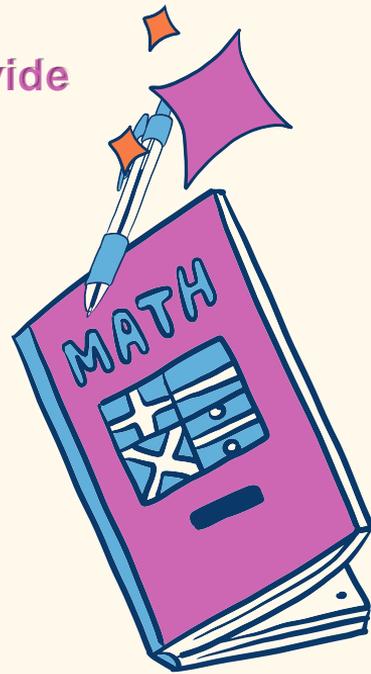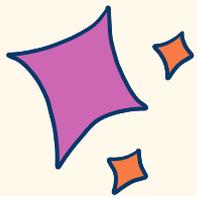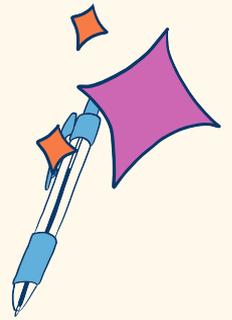
9. Andrew's height is given in centimeters. What is Andrew's height in meters?

142 cm
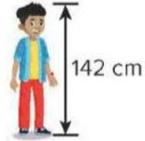
10. Error Analysis A cooler contains 50 liters of water. Emily calculated to determine how many milliliters of water are in the cooler. Check Emily's work. Did she make any mistakes? If so, how could she correct her work?

50 x 100 = 5,000

There are 5,000 milliliters of water.
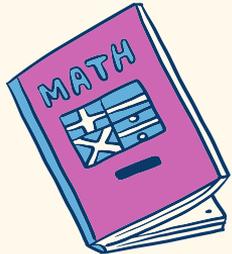
11. The maximum mass an elevator can hold is 450 kilograms. What is the maximum mass in grams?

12. How many liters of water are in the pool?

Capacity: 375 kL
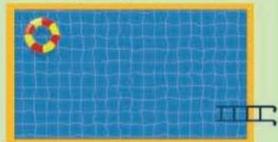
13. Ryan has a sheet of paper that is 0.75 meter long. What is the length in centimeters?

14. Ada's backpack has a mass of 9,080 grams. What is the mass in kilograms?

3. Amy's family has 2 gallons of milk in the refrigerator. At dinner, her family drinks $\frac{3}{8}$ of the milk in the refrigerator. How many cups of milk are left?

4. A track at the school is 400 meters long. Jackson walks around the track $3\frac{1}{2}$ times. How many kilometers did Jackson walk?

5. **STEM Connection** Finn knows that a cubic yard of concrete weighs about 4,050 pounds. A cement truck can hold 10 cubic yards of concrete. How many tons of concrete can the truck hold?

6. Robin is selling lemonade. She makes 3 liters of lemonade and sells glasses of 250 milliliters of lemonade each. In the first hour, she sells 6 glasses of lemonade. How many liters does she have left?

7. Brian is walking to his friend's house that is 2.6 kilometers away. He stops when he is $\frac{7}{8}$ of the way there. How many meters does he still have to walk?

8. Nell is aiming to drink the amount of water shown per day. By 3 p.m., she is $\frac{3}{4}$ of the way to her goal. How many more fluid ounces does she need to drink to reach her goal?

8 cups per day

9. Tyler wants to send his cousin 5 books that are each 1,500 grams. He has a box that can hold up to 6 kilograms. Will Tyler be able to use the box he has? Explain.

10. Gina is growing a houseplant. When she measures it at the beginning of the month, it is 3 feet tall. When she measures it at the end of the month, it is $1\frac{1}{4}$ the size it was at the beginning of the month. How many inches did the houseplant grow?

LO: Interpret coordinate values of points in the context of the situation (p 207)
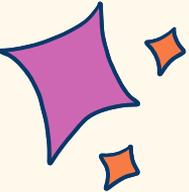
Name _____

1. The table shows the time it took for a fifth-grade student to go down the slide at a park and their height from the ground while going down the slide. Write the time and corresponding heights as ordered pairs.

Time (seconds)	Height (feet)
0	7
1	5
2	4
3	3
4	2
5	1

2. Plot and connect the points on a coordinate plane.

3. How tall is the slide?

4. How long does it take for the student to go down the slide?

5. What happens between 0 seconds and 1 second?

6. Where is the student after 5 seconds?
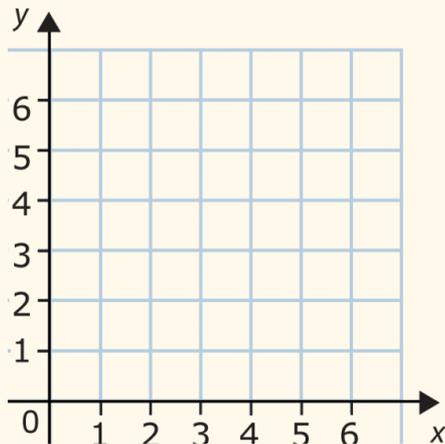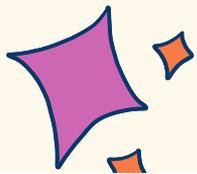
LO: Classify triangles into categories and subcategories based on their properties (p 210-212)

Work Together

Are the following statements *always true*, *sometimes true*, or *never true*? Explain.

An acute triangle is an equilateral triangle.

An isosceles right triangle is an isosceles triangle
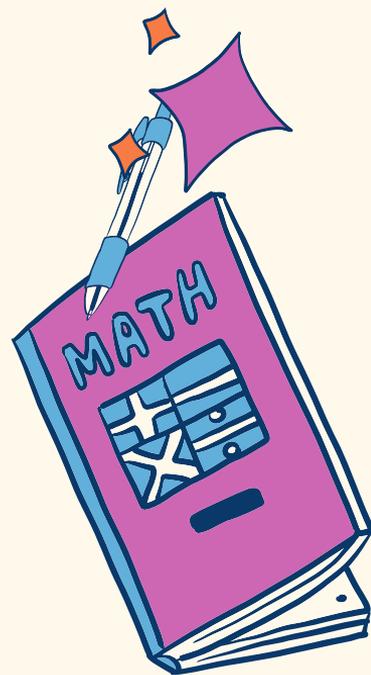
9. What is a property of all triangles?

v

10. What is a property of scalene triangles?

11. What is a property of isosceles triangles?

12. What is a property of equilateral triangles?

LO: Organize the categories and subcategories of quadrilaterals into a hierarchy (p 220-221)

Learn

How can you represent the different categories and subcategories of quadrilaterals?

Square   Trapezoid   Parallelogram   Rhombus   Rectangle

A   B   C   D   E

Quadrilaterals can be classified into categories and subcategories based on their shared properties.

You can use a **Venn diagram** to show a hierarchy.

Trapezoids are quadrilaterals, but never parallelograms.

Parallelograms are quadrilaterals.

All rectangles are also parallelograms.

Quadrilaterals

Trapezoids

Parallelograms

Rhombuses   **Squares**   **Rectangles**

All rhombuses are also parallelograms.

All squares are rhombuses and rectangles.

Use the figures for Exercises 1–8. Identify the figures that could be classified into each subcategory.

A   B   C   D

E   F   G   H

1. quadrilaterals   2. trapezoids

3. parallelograms   4. rectangles

5. rhombuses   6. squares

7. How did you know how to classify each shape? Explain.

8. Did you classify any shapes into more than one category? If so, explain why.

LO: Organize the categories and subcategories of quadrilaterals into a hierarchy (p 220-221)

Learn

How can you represent the different categories and subcategories of quadrilaterals?

Square   Trapezoid   Parallelogram   Rhombus   Rectangle

A   B   C   D   E

Quadrilaterals can be classified into categories and subcategories based on their shared properties.

You can use a **Venn diagram** to show a hierarchy.

Trapezoids are quadrilaterals, but never parallelograms.

Parallelograms are quadrilaterals.

Quadrilaterals

Trapezoids

Parallelograms

All rectangles are also parallelograms.

Rhombuses   **Squares**   **Rectangles**

All rhombuses are also parallelograms.

All squares are rhombuses and rectangles.
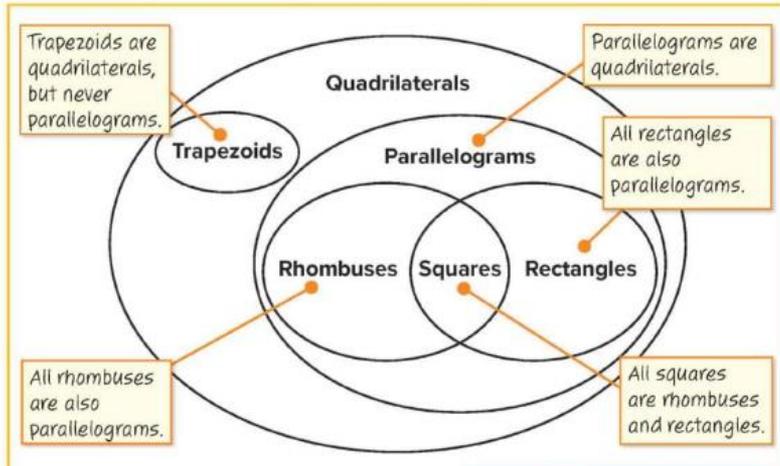
Use the figures for Exercises 1–8. Identify the figures that could be classified into each subcategory.
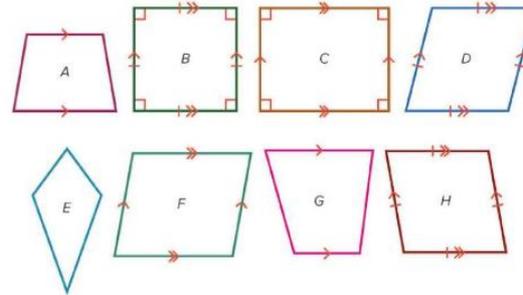
A   B   C   D

E   F   G   H

1. quadrilaterals
   Figures A, B, C, D, E, F, G, H
2. trapezoids
   Figures A, G
3. parallelograms
   Figures B, C, D, F, H
4. rectangles
   Figures B, C
5. rhombuses
   Figures B, D, H
6. squares
   Figure B
7. How did you know how to classify each shape? Explain.
   Sample answer: I classified the shapes based on number of parallel sides, number of sides of equal length, and number of right angles.
8. Did you classify any shapes into more than one category? If so, explain why. **Yes; Sample answer: All parallelograms are quadrilaterals so those shapes are in both categories; all rectangles are parallelograms so Shape C is in both categories; all rhombuses are parallelograms so those shapes are in both categories; and all squares are rhombuses so Shape B is in both categories.**
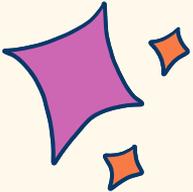
Compare the expressions using >, <, or =. Explain your reasoning.

5. $120 \div 12 \bigcirc (120 \div 12) - 9$

6. $50.5 \times 7.2 \bigcirc (50.5 - 4.8) \times 7.2$

7. $5\frac{3}{4} \times (2\frac{1}{8} + 3\frac{1}{2}) \bigcirc (5\frac{3}{4} \times 2\frac{1}{8}) + (5\frac{3}{4} \times 3\frac{1}{2})$
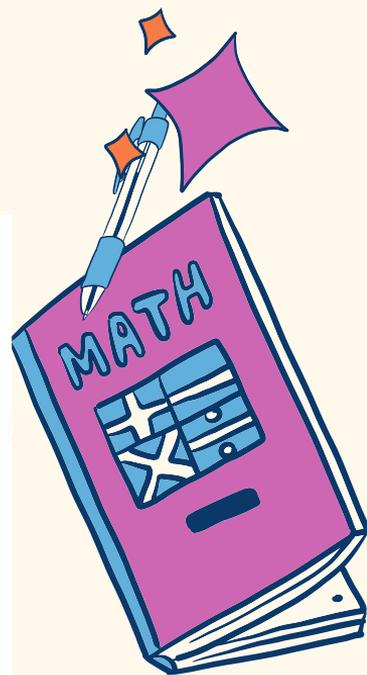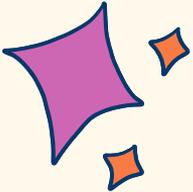
Compare the expressions using >, <, or =. Explain your reasoning.

5. $120 \div 12 \ \boxed{>} \ (120 \div 12) - 9$

Sample answer: The quotient of $120 \div 12$ is reduced by 9 in the second expression.

6. $50.5 \times 7.2 \ \boxed{>} \ (50.5 - 4.8) \times 7.2$

Sample answer: The 50.5 is reduced by 4.8 in the second expression.

7. $5\frac{3}{4} \times (2\frac{1}{8} + 3\frac{1}{2}) \ \boxed{=} \ (5\frac{3}{4} \times 2\frac{1}{8}) + (5\frac{3}{4} \times 3\frac{1}{2})$

Sample answer: Distributive Property; $5\frac{3}{4}$ is multiplied by both addends.
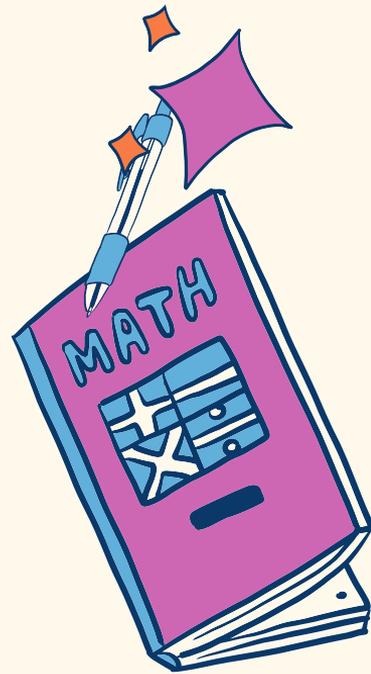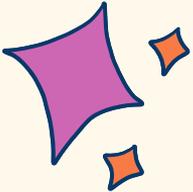
Which operation will you perform first to evaluate the expression? Explain your reasoning.

1. $25 - 5 \times (4 - 3)$

2. $37 + 8 \div 2 - 5$

3. $\frac{3}{4} \times (2\frac{1}{2} + 6\frac{1}{4})$

4. $100 \times 4 + 6 - 10$

Describe a relationship between corresponding terms in Patterns A and B.

1. Pattern A starts at 0 and adds 4 to each term.
   Pattern B starts at 0 and adds 2 to each term.

2. Pattern A starts at 0 and adds 3 to each term.
   Pattern B starts at 0 and adds 9 to each term.

3. Pattern A starts at 0 and adds 20 to each term.
   Pattern B starts at 0 and adds 5 to each term.
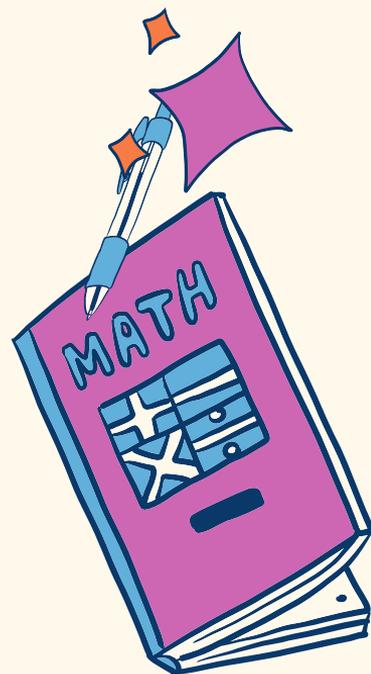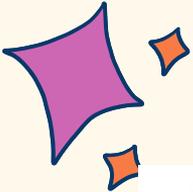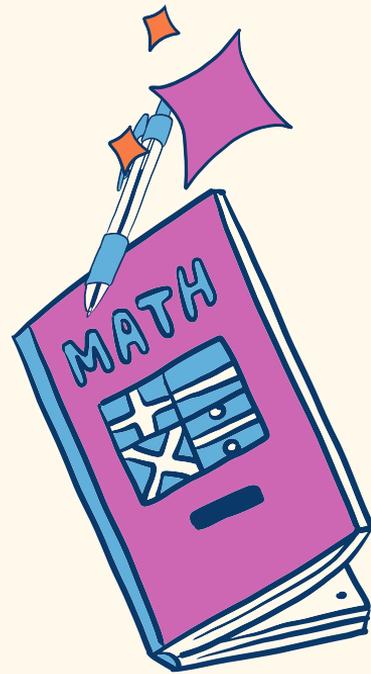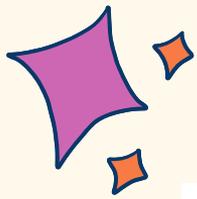
LO: Describe the relationship between corresponding terms of numerical patterns. (p 251)

Describe a relationship between corresponding terms in Patterns A and B.

1. Pattern A starts at 0 and adds 4 to each term.
Pattern B starts at 0 and adds 2 to each term.

The terms in Pattern A are 2 times as much as the corresponding terms in Pattern B.

2. Pattern A starts at 0 and adds 3 to each term.
Pattern B starts at 0 and adds 9 to each term.

The terms in Pattern B are 3 times as much as the corresponding terms in Pattern A.

3. Pattern A starts at 0 and adds 20 to each term.
Pattern B starts at 0 and adds 5 to each term.

The terms in Pattern A are 4 times as much as the terms in Pattern B.
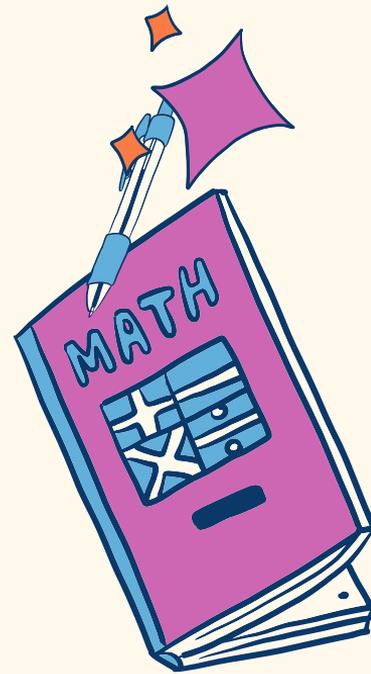
Part 3
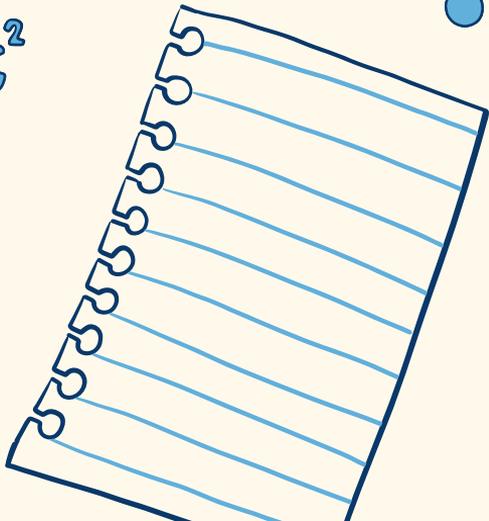
1. Sonya is making muffins. The recipe uses $\frac{1}{2}$ cup of flour and makes 12 mini muffins. How many cups of flour should Sonya use to make 6 muffins?

   A. $\frac{1}{24}$ cup   B. $\frac{1}{4}$ cup   C. $\frac{1}{6}$ cup   D. $\frac{1}{12}$ cup

2. **STEM Connection** Saffron has 4 cups of chocolate chips. She has a muffin recipe that calls for $\frac{1}{8}$ cup of chocolate chips per muffin. How many muffins can Saffron make?

3. Mr. Kline is making vegetable soup. His recipe makes 12 servings and uses $\frac{1}{3}$ pound of peas. How many pounds of peas does he need to make 6 servings?

   A. $\frac{1}{36}$ pound   B $\frac{1}{6}$ pound   C. $\frac{1}{4}$ pound   D. 4 pounds

4. Ms. Jorge is dividing 4 pounds of gardening soil equally for 5 potted plants. How many pounds of soil will be in each pot?

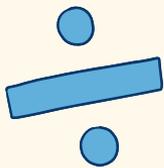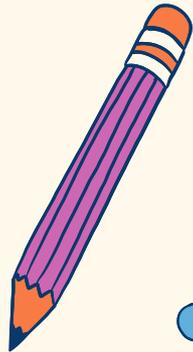5. A zoo has 5 pounds of fruit and 3 pounds of lettuce to divide equally among 3 gorillas. How many total pounds of fruit and lettuce will each gorilla get?

6. A relay race is $\frac{1}{2}$ mile long. How far does each person run if there are 3 members on the team?

7. Shaun is making 3 bags of trail mix. He has $\frac{1}{5}$ pound of dried cranberries to divide equally among the bags. How many pounds of dried cranberries will be in each bag?

   A. $\frac{1}{15}$ pound   B. $\frac{3}{5}$ pound   C. $\frac{1}{3}$ pound   D. 15 pounds

8. Lucy brings 4 cakes to the bake sale. Each piece of cake is $\frac{1}{6}$ of the whole. How many pieces of cake does she have? Write and solve the equation.

9. Mike made 60 cookies. He divided the cookies equally among his 8 friends and kept the rest for himself. How many cookies did Mike give his friends, and how many did he keep?

10. Ingrid buys this piece of cheese. She uses equal amounts of it to make 3 sandwiches. How much cheese is on each sandwich?

1. Sonya is making muffins. The recipe uses $\frac{1}{2}$ cup of flour and makes 12 mini muffins. How many cups of flour should Sonya use to make 6 muffins?

   A. $\frac{1}{24}$ cup   **B.** $\frac{1}{4}$ cup   C. $\frac{1}{6}$ cup   D. $\frac{1}{12}$ cup

2. **STEM Connection** Saffron has 4 cups of chocolate chips. She has a muffin recipe that calls for $\frac{1}{8}$ cup of chocolate chips per muffin. How many muffins can Saffron make?

   32 muffins

3. Mr. Kline is making vegetable soup. His recipe makes 12 servings and uses $\frac{1}{3}$ pound of peas. How many pounds of peas does he need to make 6 servings?

   A. $\frac{1}{36}$ pound   **B.** $\frac{1}{6}$ pound   C. $\frac{1}{4}$ pound   D. 4 pounds

4. Ms. Jorge is dividing 4 pounds of gardening soil equally for 5 potted plants. How many pounds of soil will be in each pot?

   $\frac{4}{5}$ **pound**

5. A zoo has 5 pounds of fruit and 3 pounds of lettuce to divide equally among 3 gorillas. How many total pounds of fruit and lettuce will each gorilla get?

   $\frac{5}{3}$ **pounds fruit and 1 pound lettuce**

6. A relay race is $\frac{1}{2}$ mile long. How far does each person run if there are 3 members on the team? $\frac{1}{6}$ **mile**

7. Shaun is making 3 bags of trail mix. He has $\frac{1}{5}$ pound of dried cranberries to divide equally among the bags. How many pounds of dried cranberries will be in each bag?

   A. $\frac{1}{15}$ pound   B. $\frac{3}{5}$ pound   C. $\frac{1}{3}$ pound   D. 15 pounds

8. Lucy brings 4 cakes to the bake sale. Each piece of cake is $\frac{1}{6}$ of the whole. How many pieces of cake does she have? Write and solve the equation.

   $$4 \div \frac{1}{6} = 24 \text{ pieces}$$

9. Mike made 60 cookies. He divided the cookies equally among his 8 friends and kept the rest for himself. How many cookies did Mike give his friends, and how many did he keep?

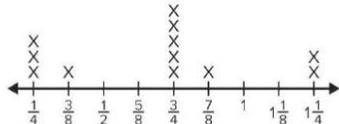   **He gave 7 cookies to each friend and kept 4 to himself.**

10. Ingrid buys this piece of cheese. She uses equal amounts of it to make 3 sandwiches. How much cheese is on each sandwich?

    $\frac{1}{12}$ **pound**

    $\frac{1}{4}$ lb

LO: Solve problems using data in a line plot and performing operations on the data (p 185-186)

The line plot shows the weights of various mice.
Use the line plot to answer the questions.

Mice Weight (in ounces)

1. What is the combined weight of the 4 lightest mice?

2. What is the combined weight of the mice that weigh $\frac{3}{4}$ ounces?

3. What is the combined weight of all the mice?

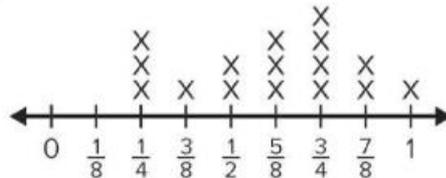4. What is the difference in weight between the heaviest mouse and the lightest mouse?

The line plot shows the amount of rain that fell each day in a week.
Use the line plot to answer the questions.
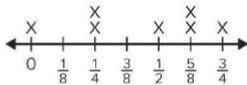
Daily Rainfall (in inches)

5. What was the total amount of rainfall in inches during the week?

6. How many days did it rain during the week?

7. On the days it rained, what is the difference between the greatest and least amount of rainfall?

8. If the same amount of rain falls the following week, what is the total amount of rainfall over two weeks?

The line plot shows how much water each player drank during a basketball game. Use the line plot to answer the questions.
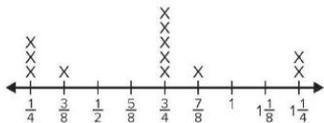

Water Drank (in gallons)

9. How many players drank water during the basketball game?

10. What is the difference between the greatest amount of water drank and the least amount of water drank?

LO: Solve problems using data in a line plot and performing operations on the data (p 185-186)

The line plot shows the weights of various mice. Use the line plot to answer the questions.

Mice Weight (in ounces)

1. What is the combined weight of the 4 lightest mice? $1\frac{1}{8}$ oz

2. What is the combined weight of the mice that weigh $\frac{3}{4}$ ounces? $3\frac{3}{4}$ oz

3. What is the combined weight of all the mice? $8\frac{1}{4}$ oz

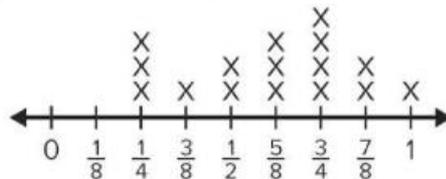4. What is the difference in weight between the heaviest mouse and the lightest mouse? **1 oz**

The line plot shows the amount of rain that fell each day in a week. Use the line plot to answer the questions.

Daily Rainfall (in inches)

5. What was the total amount of rainfall in inches during the week? **3 in.**

6. How many days did it rain during the week? **6 days**

7. On the days it rained, what is the difference between the greatest and least amount of rainfall? $\frac{1}{2}$ in.

8. If the same amount of rain falls the following week, what is the total amount of rainfall over two weeks? **6 in.**

Unit 12 • Measurement and Data 185

The line plot shows how much water each player drank during a basketball game. Use the line plot to answer the questions.
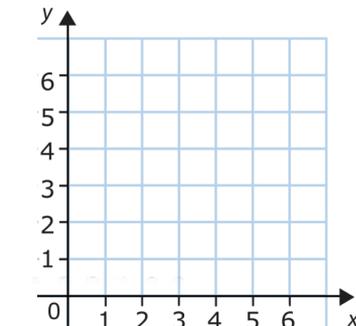
Water Drank (in gallons)

9. How many players drank water during the basketball game? **16 players**

10. What is the difference between the greatest amount of water drank and the least amount of water drank? $\frac{3}{4}$ gal

Plot and label the point for each place shown in the table.
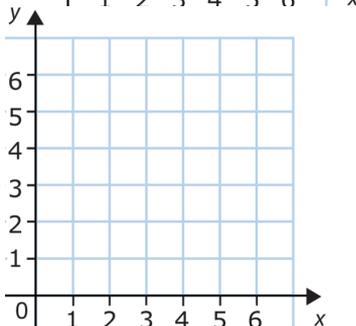
Place	Ordered Pair
Playground	(4, 6)
Post Office	(1, 2)
Fire Station	(5, 3)
Jill's House	(2, 4)

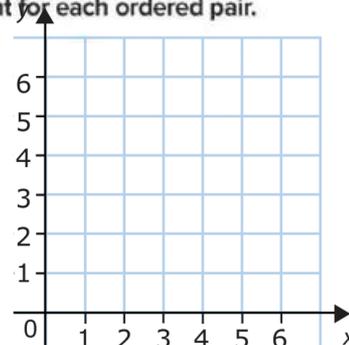1. Playground

2. Post Office

3. Fire Station

4. Jill's House

Plot and label the point for eac

5. M(3, 2)

6. N(4, 3)

7. P(5, 4)

8. Q(1, 5)

Plot and label the point for each ordered pair.

9. R(0, 0)

10. S(4, 0)
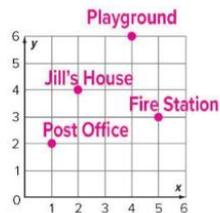
11. T(0, 6)

12. U(3, 5)

Unit 13 • Geometry   **203**

LO: Plot ordered pairs on a coordinate plane. (p 203-204)

Plot and label the point for each place shown in the table.

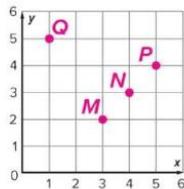| Place	Ordered Pair
Playground	(4, 6)
Post Office	(1, 2)
Fire Station	(5, 3)
Jill's House	(2, 4)

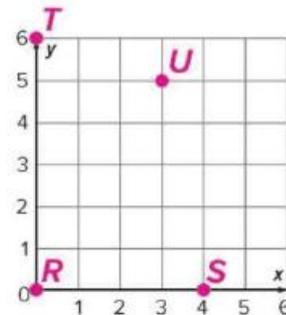1. Playground

2. Post Office

3. Fire Station

4. Jill's House

Plot and label the point for each ordered pair.
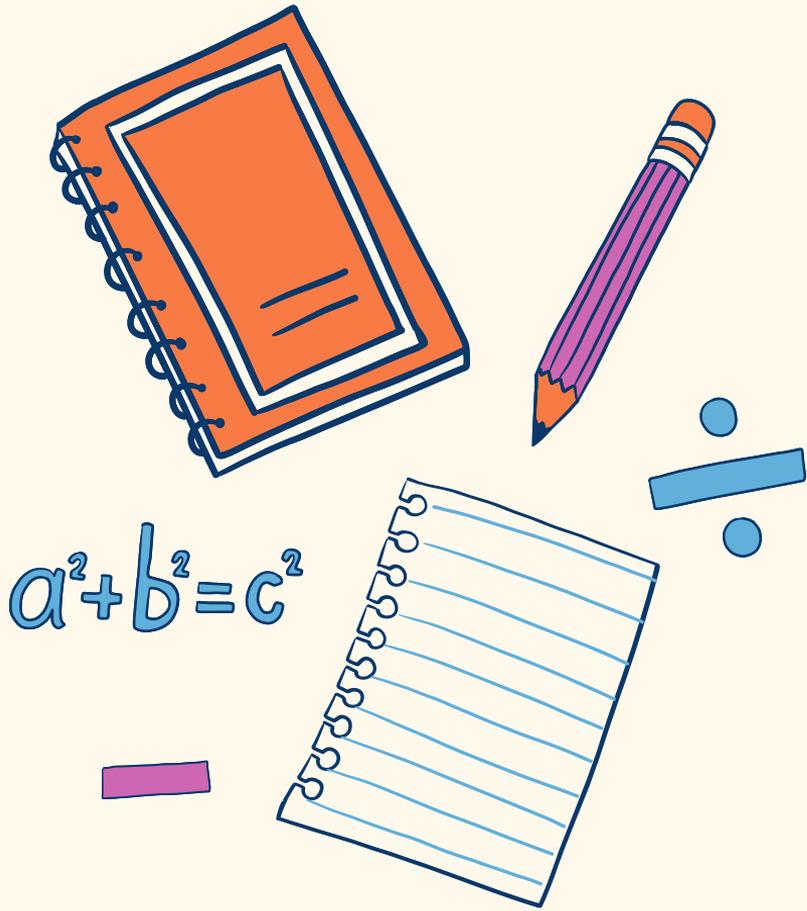
5. M(3, 2)

6. N(4, 3)

7. P(5, 4)

8. Q(1, 5)

Plot and label the point for each ordered pair.

9. R(0, 0)

10. S(4, 0)

11. T(0, 6)

12. U(3, 5)

$a^2 + b^2 = c^2$

Thank you!

Athar Hashim