

Name Math Keys

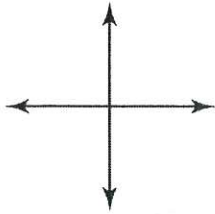
Reteach to Build Understanding

16-1

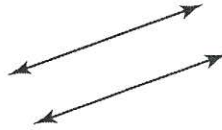
AZ Vocabulary

1. **Intersecting lines** pass through the same point. **Parallel lines** never intersect. **Perpendicular lines** form right angles.

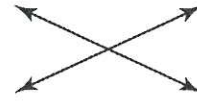
Write the best term for each pair of lines.



Perpendicular lines



Parallel lines



Intersecting lines

Examples of parallel, intersecting, and perpendicular lines can be found by looking at the streets on a map.

2. Name two streets that are parallel to Naples Avenue.

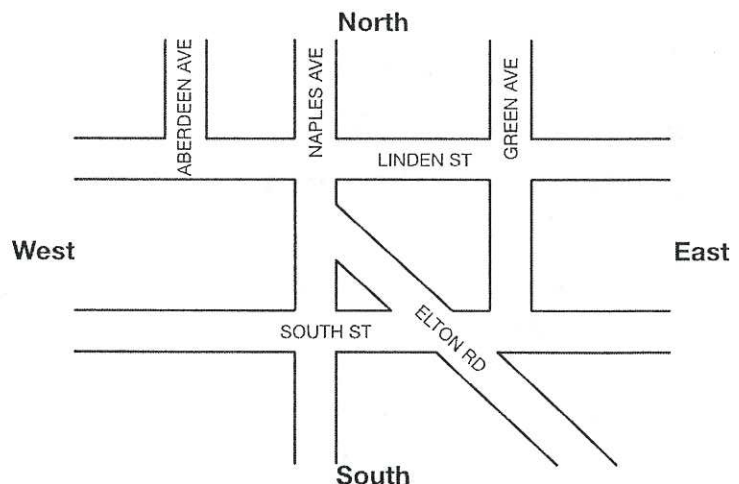
Aberdeen Ave

Green Ave

3. Name two streets that are perpendicular to Naples Avenue.

Linden St

South St



4. Name a street that intersects, but is not perpendicular to, Naples Avenue.

Elton Rd

On the Back!

5. Look at South Street on the map. Name the streets that are parallel to, perpendicular to, and intersect, but are not perpendicular to, South Street.

Parallel street: Linden St; Perpendicular streets: Naples Ave or Green Ave; Intersecting street: Elton Rd

1. Quentin places 58 fish in several tanks. If he places 8 fish in each tank, how many fish are not placed in the tanks but in a small fish bowl instead?
- (A) 8 fish
 - (B) 7 fish
 - (C) 3 fish
 - (D) 2 fish

2. Which of the following best describes the answer to the subtraction problem?

$$5,821 - 4,970$$

- (A) The answer is less than 1,000.
- (B) The answer is 1,000.
- (C) The answer is a little greater than 1,000.
- (D) The answer is a lot greater than 1,000.

3. Which of the following show $\frac{3}{4}$ decomposed? Select all that apply.

- $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$
- $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$
- $\frac{2}{4} + \frac{1}{4}$
- $\frac{2}{4} + \frac{2}{4}$
- $\frac{3}{4} + \frac{3}{4} + \frac{3}{4}$

4. What is $4,216 + 2,947 - 2,318$?

- (A) 4,845
- (B) 4,216
- (C) 2,947
- (D) 2,318

5. Clint's grandfather has 8,880 bottle caps boxed in his basement. How many bottle caps does Clint's grandfather have rounded to the nearest thousand?

9,000 bottle caps

6. If Jane rides her bike 15 miles each day for 12 weeks, how many miles will Jane have ridden her bike?

1,260 miles

7. Hugo drove 26 miles on Thursday. He drove twice as many miles on Friday. On Saturday, he drove 18 miles more than he did on Friday. How many miles did Hugo drive on Saturday?

70 miles

8. Write the missing number to complete the equation.

$$\frac{2}{3} = \boxed{2} \times \frac{1}{3}$$

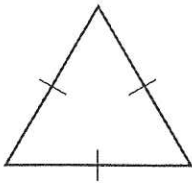
9. Write the missing numbers.

$$\begin{array}{r} 24 \\ \times 19 \\ \hline 36 \\ 180 \\ 40 \\ + 200 \\ \hline 456 \end{array}$$

Name _____

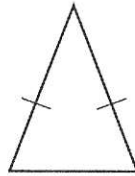
Vocabulary

1. Triangles can be classified by their side lengths.



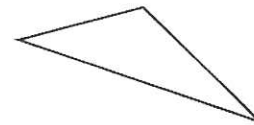
Equilateral triangle

3 equal sides



Isosceles triangle

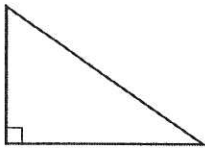
at least 2 equal sides



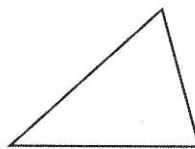
Scalene triangle

No equal sides

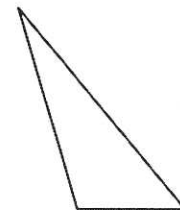
2. Triangles can be classified by their angle measures.



Right



Acute

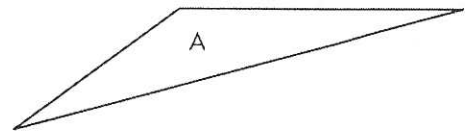


Obtuse

Classify each triangle.

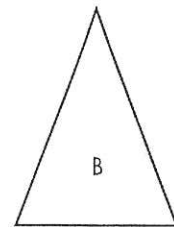
3. Triangle A has no sides of the same length, so it is a **scalene** triangle.

It has one angle greater than 90° , so it is an **obtuse** triangle.



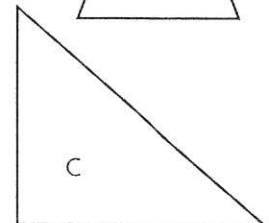
4. Triangle B has two sides of the same length, so it is an **isosceles** triangle.

It has three angles that are less than 90° , so it is an **acute** triangle.



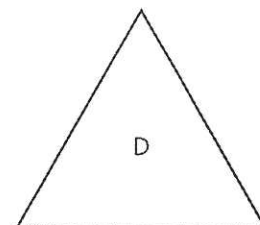
5. Triangle C has no sides the same length, so it is a **scalene** triangle.

It has one 90° angle, so it is a **right** triangle.



On the Back!

6. Classify Triangle D by its sides and by its angles.
Equilateral acute triangle



1. Luke bought a helmet for \$19.67. How much change should Luke receive if he pays the cashier \$20.00? You may use bills and coins to solve.

(A) \$0.33
(B) \$0.43
(C) \$1.33
(D) \$1.43

2. Mrs. Pierce has 100 coins in her collection. She keeps the coins in 5 boxes. Each box has the same number of coins. How many coins are in each box?

(A) 20 coins (C) 30 coins
(B) 25 coins (D) 35 coins

3. Lynette drew the figure shown below.

$A = 160$ square inches 2 in.

What is the perimeter of the figure?

- (A) 16 inches
(B) 20 inches
(C) 56 inches
(D) 164 inches
4. How many pints are in 2 quarts?
- (A) 1 pint
(B) 2 pints
(C) 3 pints
(D) 4 pints

5. A restaurant bought 13 boxes of ketchup. Each box has 32 bottles of ketchup. Write and solve a number sentence using compatible numbers to estimate the number of ketchup bottles the restaurant purchased.

$$10 \times 30 = 300 \text{ bottles}$$

6. What is the value of the 3 in 236,000?

30,000

7. A spider has 8 legs. How many legs do 6 spiders have?

48 legs

8. Jack draws an angle that measures 150° . He then divides the angle into 2 equal parts. What is the measure of each smaller angle?

75°

9. A rectangular pool has a length of 16 feet and a width of 32 feet. What is the area of the pool?

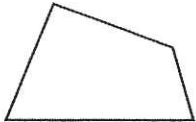
512 square feet

10. Find $5,120 \div 8$.

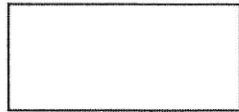
640

Vocabulary

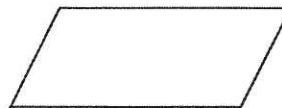
1. A **quadrilateral** is any 4-sided shape. Quadrilaterals can be named for their angles and sides.



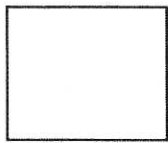
Quadrilateral



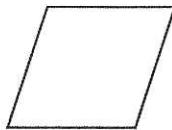
Rectangle



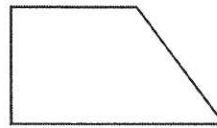
Parallelogram



Square



Rhombus



Trapezoid

A rectangle has 4 right angles and 2 pairs of parallel sides.

A parallelogram has 2 pairs of parallel sides.

A square has 4 right angles and all sides are the same length.

A rhombus has opposite sides that are parallel and all sides are the same length.

A trapezoid has only one pair of parallel sides.

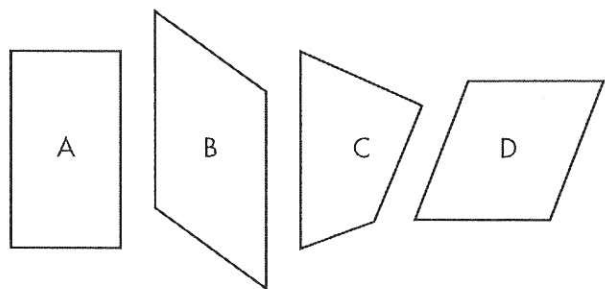
Use the quadrilaterals at the right.

2. Figures A, B, and D have opposite sides that are parallel, so they are parallelograms.

There are more specific names for two of these figures.

Figure A has 4 right angles and 2 pairs of parallel sides. Opposite sides have the same length, so it is a rectangle.

Figure D has all sides the same length, so it is a rhombus.

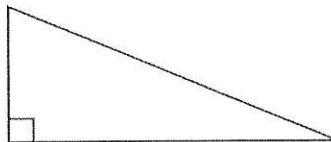


On the Back!

3. What is the best name for figure C shown in Exercise 2? **Quadrilateral**

- Mrs. Jackson wrote a paper that had 670,170 words. How many words did Mrs. Jackson write rounded to the nearest hundred thousand?
 (A) 600,000 words
 (B) 670,000 words
 (C) 700,000 words
 (D) 750,000 words
- Harvey can read 17 pages in one hour. In one week, he spent 12 hours reading. How many pages did Harvey read that week?
 (A) 204 pages
 (B) 194 pages
 (C) 104 pages
 (D) 51 pages
- John has \$45.11. His sister has \$51.79. How much do they have together? You may use bills and coins to help.
 (A) \$96.80
 (B) \$96.89
 (C) \$96.90
 (D) \$96.99
- Which lists all the factors of 21?
 (A) 1, 3, 7
 (B) 1, 3, 7, 21
 (C) 1, 3, 7, 14, 21
 (D) 0, 1, 3, 5, 7, 9, 21

- Classify the triangle below by its sides and by its angles.



Scalene right triangle

- Wendell has 19,748 craft sticks. He uses 4,671 craft sticks to make a model house. How many craft sticks does Wendell have left?

15,077 craft sticks

- A rectangle has a perimeter of 64 ft. What is the area of the rectangle if its length is 19 feet?

247 square feet

- Find $\frac{30}{100} + \frac{20}{100} + \frac{30}{100}$.

$\frac{80}{100}$

- How many millimeters are equal in length to 90 centimeters?

10 mm = 1 cm

900

Name _____

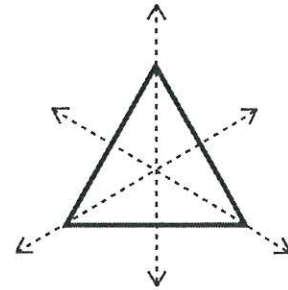
Vocabulary

1. If a figure can be folded on a line to form two matching parts that fit exactly on top of each other, then it is **line symmetric**.

The fold line is called a **line of symmetry**.

A figure can have more than one line of symmetry.

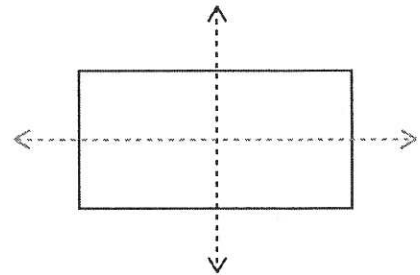
How many lines of symmetry does the triangle at the right have? 3



2. Is the line shown on the figure at the right a line of symmetry? Yes

Draw another line of symmetry on the figure, if possible.

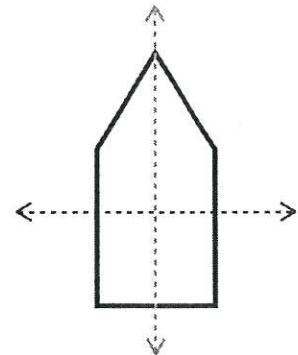
How many lines of symmetry does the figure have? 2



3. Is the line shown on the figure at the right a line of symmetry? No

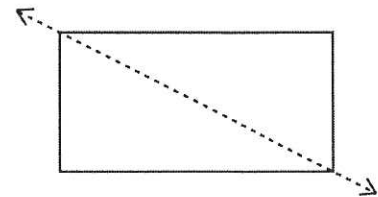
Draw a line of symmetry on the figure, if possible.

How many lines of symmetry does the figure have? 1



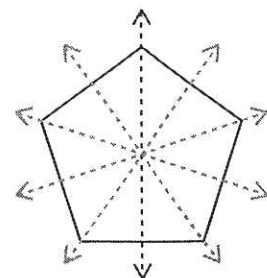
4. Is the line shown on the figure at the right a line of symmetry? Explain.

No; Sample answer: When folded, the parts do not match.



On the Back!

5. Is the figure line symmetric? Draw and tell how many lines of symmetry the figure has. **Yes; 5 lines**



1. What is 530,938 rounded to the nearest thousand?

(A) 530,000
(B) 530,900
(C) 531,000
(D) 540,000

2. Gavin is 4 feet tall. How many inches tall is Gavin?

(A) 48 inches
(B) 36 inches
(C) 24 inches
(D) 12 inches

3. Which fraction is **NOT** equivalent to $\frac{1}{4}$?

(A) $\frac{2}{10}$
(B) $\frac{2}{8}$
(C) $\frac{3}{12}$
(D) $\frac{25}{100}$

4. Jan has five \$1 bills, 3 quarters, and 4 dimes. How much money does Jan have? You may use coins and bills to help solve.

(A) \$6.45
(B) \$6.35
(C) \$6.25
(D) \$6.15

5. Jonathan draws the figure below. He says that he drew a quadrilateral. Is Jonathan correct? Explain.



No; Sample answer: The figure has 5 sides, not 4.

6. A camper has 6 storage compartments. Each compartment can hold 3 sleeping bags. If there are 17 sleeping bags to be stored, how many compartments will be used? How many sleeping bags will be in the compartment that is not completely filled?

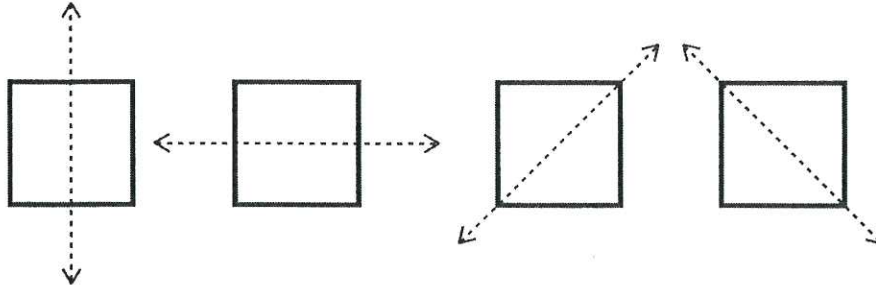
All 6 compartments will be used. The last compartment will have 2 sleeping bags.

7. Juan bought a sweater for \$15.95 and two shirts for \$9.00 each. How much did Juan spend on clothes? You may use coins and bills to help solve.

\$33.95

Vocabulary

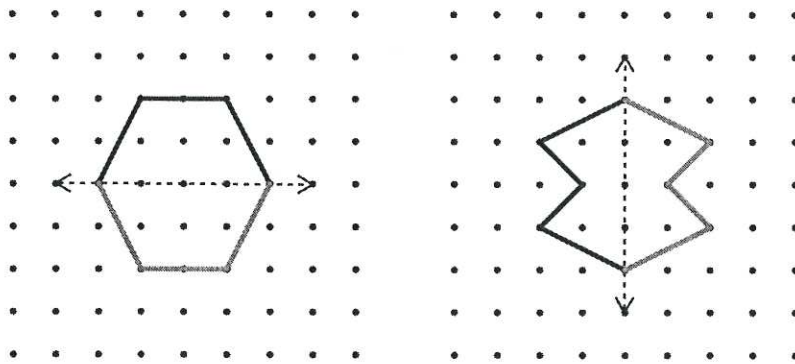
1. A **line of symmetry** is a line on which a figure can be folded so that both parts match. A figure can have more than one line of symmetry.



How many lines of symmetry does a square have? 4

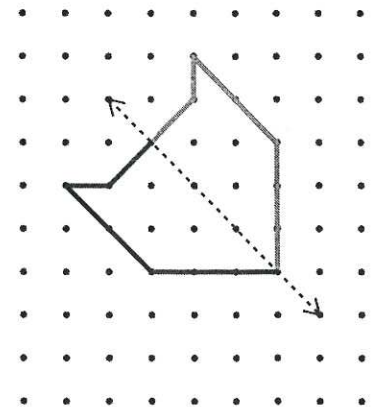
Use the line of symmetry to draw line-symmetric figures.

2. One half of each figure is already drawn. Complete the figure on the opposite side of the line of symmetry.



3. How can you use the line of symmetry to check your drawings?

The two parts of each figure should match when they are folded on the line of symmetry.



On the Back!

4. Use the line of symmetry to draw a line-symmetric figure.

1. Raj uses "Add 4" as the rule to make a pattern. He starts with 48 and writes the next 8 numbers in his pattern. Which number does **NOT** belong in Raj's pattern?

(A) 52
 (B) 56
 (C) 68
 (D) 74

2. Sarah buys a scooter for \$67.52. How much change does Sarah receive if she gives the cashier \$70? You may draw or use bills and coins to solve.

(A) \$1.48
 (B) \$2.48
 (C) \$3.48
 (D) \$137.52

3. Which of the following decimals would be placed at one of the points on the number line shown? Select all that apply.



0.1
 0.4
 1.1
 1.4
 2.2

4. Michael draws a square on his paper. He says that his square cannot be classified as a rectangle. Do you agree with Michael? Explain why or why not.

No; Sample answer: A

rectangle has 2 pairs of

parallel sides and 4 right

angles. A square also

has 2 pairs of parallel

sides and 4 right angles.

So, a square can also be

classified as a rectangle.

5. $\angle ABC$ and $\angle CBD$ form $\angle ABD$. $\angle ABD$ is a right angle. Describe $\angle ABC$ and $\angle CBD$.

Sample answer: $\angle ABC$

and $\angle CBD$ are both

acute angles. Since

$\angle ABD$ measures 90° , the

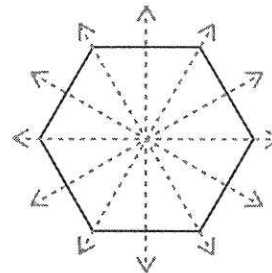
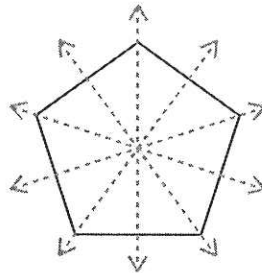
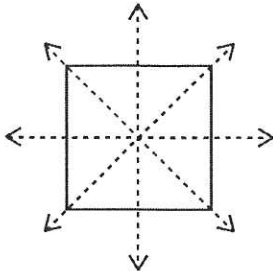
measures of each of the

angles must be less than

90° .

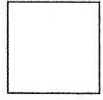
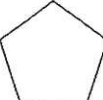
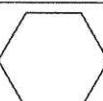
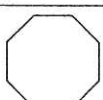
Vocabulary

1. A **line of symmetry** is a line on which you can fold a figure and have both parts match exactly. The square has 4 lines of symmetry. Draw lines of symmetry for the other figures.



2. Jared says that a regular figure (a figure that has all equal sides and equal angles) has the same number of lines of symmetry as it does number of sides or angles. Critique Jared's reasoning. Look for flaws in Jared's reasoning.

Complete the table to look at several cases.

Regular Figure	Number of Equal Sides or Equal Angles	Number of Lines of Symmetry
	4	4
	5	5
	6	6
	8	8

3. Is Jared's reasoning correct? Explain.

Yes; Sample answer: Jared's reasoning seems to be correct based on the examples.

On the Back!

4. Draw a figure that has 4 sides but does **NOT** have 4 lines of symmetry.

Check students' drawings.

1. The table below shows how much money four family members spent at a concert.

Name	Amount Spent
Brenda	\$16.70
Kirk	\$17.76
Allison	\$6.70
Lee	\$17.60

How much money did the four family members spend altogether? You may draw or use bills and coins to solve.

- (A) \$46.86
 - (B) \$56.76
 - (C) \$56.86
 - (D) \$58.76
2. Tyler drew a line that was 5 feet long. How many inches long was the line Tyler drew?
- (A) 12 inches
 - (B) 36 inches
 - (C) 48 inches
 - (D) 60 inches
3. Mrs. Pace bought 4 large-cheese pizzas for \$18 each. She also bought 5 orders of cheese sticks for \$4 each. She had a coupon that said buy 1 pizza get a second pizza of equal price $\frac{1}{2}$ off. How much was Mrs. Pace's total before tax is added?
- (A) \$92
 - (B) \$74
 - (C) \$72
 - (D) \$54

4. Write a fraction that is equivalent to $\frac{4}{12}$.

Sample answer: $\frac{1}{3}$

5. Taryn cuts a rectangle and a square out of wood. The figures each have a perimeter of 16 inches. What are possible side lengths of the rectangle and the square?

Sample answer: The rectangle could have 3-inch and 5-inch side lengths and the square has 4-inch side lengths.

6. The Kings County school district has 25,093 fourth-grade students. Of these, 13,689 are girls. How many boys are in the fourth grade?

11,404 boys

7. How many lines of symmetry does the figure below have? Draw each one.

4

