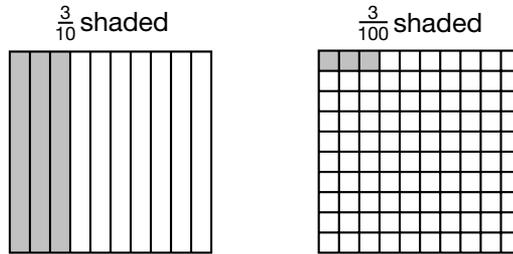
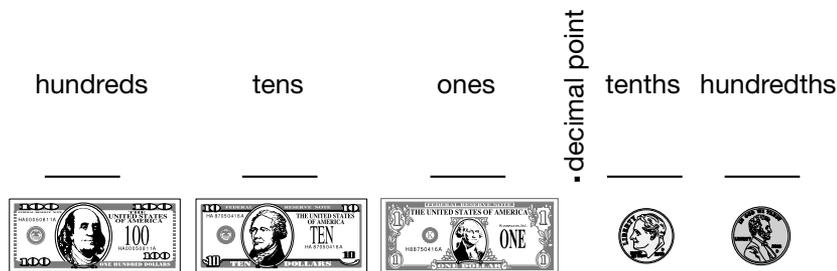


• Decimal Place Value

- A tenth is **greater than** a hundredth.



- Thinking about money can help us understand decimal place value.



- To identify decimal place value, pay attention to the decimal point, not the last digit of the number.

26.73 28.6
26.730 2.86

- If there is no digit to subtract from, fill the empty place with a zero.

Example: $5.1 - 3.38$

$$\begin{array}{r}
 \overset{4}{.} \overset{10}{1} \\
 - \overset{3}{.} \overset{3}{0} \overset{10}{8} \\
 \hline
 \overset{1}{.} \overset{7}{0} \overset{10}{2}
 \end{array}$$

Practice:

1. Which digit in 5.186 is in the hundredths place? _____
2. Which digit in 5.186 is in the same place as the 4 in 18.401? _____
3. Name the place value of 6 in the number 3.46. _____
4. Which two numbers below are equal? _____ and _____
78.95 78.950 7.895
5. Which two numbers below are equal? _____ and _____
0.020 0.02 0.201
6. Which digit is in the thousandths place in 21.345? _____

• **Classifying Quadrilaterals**

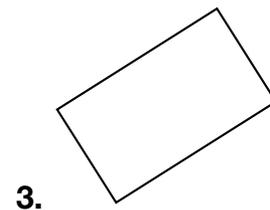
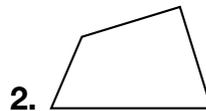
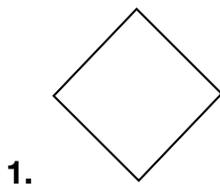
- A **quadrilateral** is a **polygon** with 4 sides.
- A **parallelogram** is a quadrilateral with 2 pairs of parallel sides.
- A **rectangle** is a parallelogram with 4 right angles.
- A **square** is a rectangle with 4 equal sides.

Compare quadrilaterals by studying the examples in this chart.

Classifying Quadrilaterals		
A quadrilateral is any four-sided polygon.		
Name	Characteristics	Shape
Trapezium	No sides parallel	
Trapezoid	One pair of parallel sides	
Parallelogram	Two pairs of parallel sides	
Rhombus	Parallelogram with equal sides	
Rectangle	Parallelogram with right angles	
Square	Rectangle with equal sides	

Practice:

Describe each quadrilateral as a trapezoid, trapezium, parallelogram, rhombus, rectangle, or square. More than one description might apply to each figure.



• Estimating Multiplication and Division Answers

- To estimate multiplication or division answers, round first.

Examples: 45×31

$157 \div 8$

$50 \times 30 = 1500$

$160 \div 8 = 20$

Practice:

Estimate each product or quotient. Then find the exact answer.

1. 48×22

Estimate: _____ \times _____ = _____

Exact answer:

$$\begin{array}{r} 48 \\ \times 22 \\ \hline + \\ \hline \end{array}$$

2. 67×54

Estimate: _____ \times _____ = _____

Exact answer:

$$\begin{array}{r} 67 \\ \times 54 \\ \hline + \\ \hline \end{array}$$

3. 29×16

Estimate: _____ \times _____ = _____

Exact answer:

$$\begin{array}{r} 29 \\ \times 16 \\ \hline + \\ \hline \end{array}$$

4. 59×33

Estimate: _____ \times _____ = _____

Exact answer:

$$\begin{array}{r} 59 \\ \times 33 \\ \hline + \\ \hline \end{array}$$

• Two-Step Word Problems

- To solve some word problems we have to perform two operations.
- Writing down the given information or drawing a picture is often helpful in solving two-step word problems.

Practice:

1. Christa bought 8 bagels with a \$10 bill. She got back \$6. What was the cost of each bagel? Remember to write the units.

Write down what you know:

Christa bought _____. She used _____ to pay for the bagels.

She got back _____ in change.

Subtract to find the cost of 8 bagels.

$$\begin{array}{r} \$10.00 \\ - \$ 6.00 \\ \hline \end{array}$$

Divide to find the cost of each bagel.

) _____ *Hint: Show dollars and cents.*

_____ per bagel

2. The perimeter of this rectangle is 12 inches. The length is twice the width. What is the area of the rectangle?

Perimeter: _____

Draw a picture:

Length: _____

Width: _____

Area: _____

3. Melissa is 15 years older than Brent. Brent is 6 years older than Gael. If Brent is 9 years old, how old are Melissa and Gael?

Write down what you know:

Brent is _____ years old.

Brent is _____ years old,
which is _____ years older
than Gael.

Melissa is _____ years older
than Brent.

To solve, _____ the numbers.

To solve, _____ the numbers.

Melissa is _____ years old.

Gael is _____ years old.

• Two-Step Problems about a Fraction of a Group

- Sometimes it takes two steps (operations) to find a fraction of a group when the total is known.
- Divide by the **denominator** (bottom number) of the fraction to find the number in one part.
- Multiply by the **numerator** (top number) of the fraction to find the number in more than one part.
- Remember the rule we use to find a fraction of a group.

$$\begin{array}{r} \text{Number in each group} \\ \times \text{Number of groups} \\ \hline = \text{Total} \end{array}$$

Example: At a concert, $\frac{7}{8}$ of the audience wore wristbands. If there were 5600 people in the audience, how many wore wristbands?

Solution: $\begin{array}{r} 700 \\ 8 \overline{)5600} \end{array}$ divide the total by the denominator

$700 \times 7 = 4900$ multiply the result by the numerator

4900 people wore wristbands.

Practice:

1. $\frac{2}{3}$ of the 21 students wanted to play kickball. How many students wanted to play kickball?

_____ students

2. Three-fifths of the 55 beads in Ms. Cavender's necklace were purple. How many beads were not purple?

_____ beads were not purple.

• Mean, Median, Mode, and Range

- The **mean** is the average of a list of numbers.
- The **median** is the middle number when the numbers are arranged in order. If there is an even number of things in a list, the median is the average of the two middle numbers.
- The **mode** is the number that repeats most in the list.
- The **range** is the difference between the least and the greatest numbers.

Practice:

1. Find the mean, median, mode, and range of temperatures shown below.

69°, 71°, 74°, 62°, 75°, 51°

First arrange the temperatures in order:

_____, _____, _____, _____, _____

Mean (average): _____

Median: _____

Mode: _____

Range: _____

2. Find the mean, median, mode, and range of this set of data:

29, 23, 30, 32, 25, 46, 18

Arrange in order:

_____, _____, _____, _____, _____, _____

Mean (average): _____

Median: _____

Mode: _____

Range: _____

3. Find the median of this set of data.

78, 81, 85, 77, 83, 90

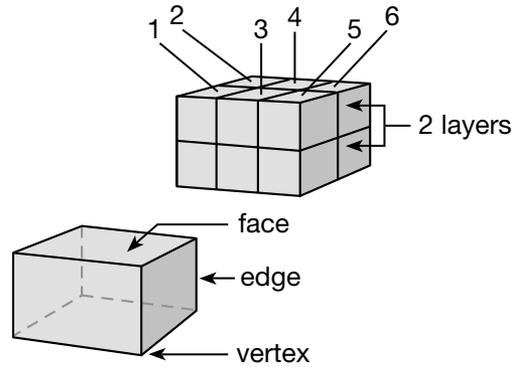
Median: _____

Explain your answer.

• **Geometric Solids**

- Geometric shapes that take up space are called **geometric solids**.
- This rectangular solid is made up of 2 layers of cubes with 6 cubes in each layer ($2 \times 6 = 12$). The rectangular solid is made up of 12 small cubes.

- **Face** → Flat surface of a geometric solid
- **Edge** → Line segment where faces meet
- **Vertex** → Corner where edges meet



Practice:

For problems 1–4, name the shape of each object.

- | | |
|-----------------|---------------------|
| 1. globe _____ | 2. tissue box _____ |
| 3. funnel _____ | 4. tuna can _____ |

5. What is the name of this solid? _____



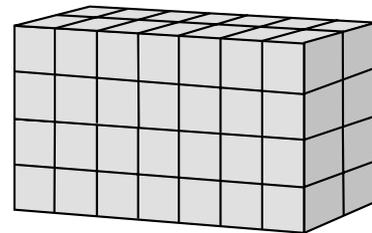
6. How many edges does the figure above have? _____

7. Look at the figure of a rectangular solid.

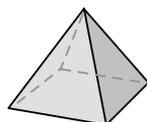
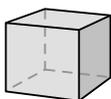
How many cubes in the top layer? _____

How many layers? _____

How many cubes altogether? _____



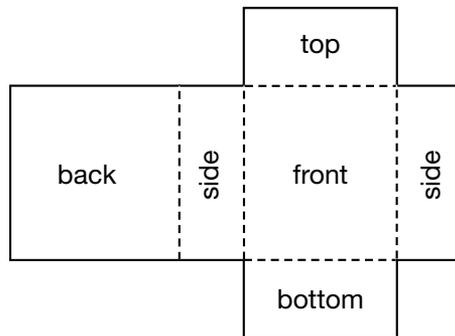
8. What type of solid has 8 vertices and 6 faces? _____
Use the figures below to work out the answer.



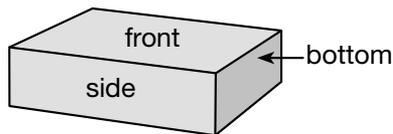
• Constructing Prisms

- A **net** is an arrangement of polygons (drawn on paper) that can be folded to become the faces of a geometric solid. Picture a cereal box that has been cut along its edges so that it can lay flat.
- We can make models of cubes, rectangular prisms, and triangular prisms by cutting, folding and taping nets of these shapes.

Example: The dotted lines on this net show where to fold it to construct the 3-dimensional model. What geometric solid does the net create?



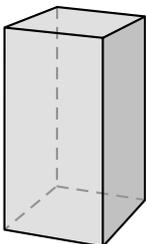
If we fold the net on the dotted lines, we construct a rectangular prism.



Practice:

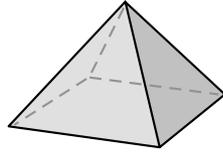
1. How many faces does a triangular prism have? _____
2. What geometric shape is the face of a cube? _____
3. Are the triangular faces of a triangular prism parallel or perpendicular?

4. Look at the geometric solid below. Then sketch a net in the space at right.



• **Constructing Pyramids**

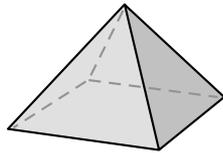
- Shapes that take up space are called **geometric solids**. Prisms like those we learned about in Lesson 98 are examples of geometric solids. **Pyramids** are another kind of geometric solid.



- Geometric solids have three dimensions: **length, width, and height**.

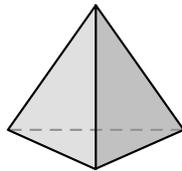
Practice:

1. This pyramid has a square base. How many vertices does the pyramid have?



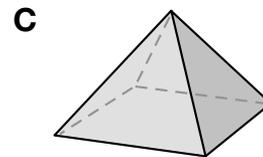
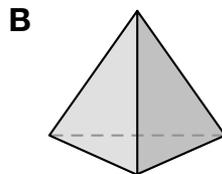
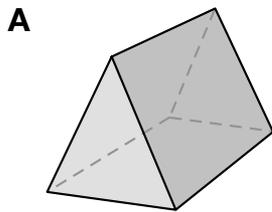
_____ vertices

2. This pyramid has a triangular base. How many faces does the pyramid have?



_____ faces

3. Which of these geometric solids is not a pyramid? _____



4. Look at the solid below. Then sketch a net of the solid.

