

Warm Up

1 a) Insert brackets to the following number sentences to make the equality correct.

$$5 \times 154 + 46 = 1000$$

b) Compare:

$28 + b \underline{\hspace{1cm}} 28 + (b + 1)$

$28 + b \underline{\hspace{1cm}} 28 + (b - 1)$

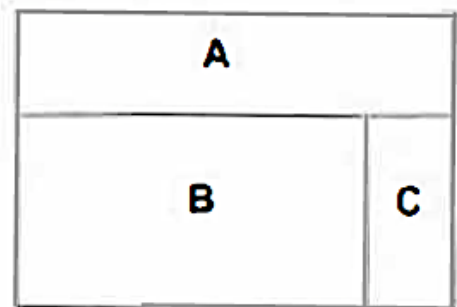
$32 + 1 \underline{\hspace{1cm}} 32 + (1 + 2)$

$32 - x \underline{\hspace{1cm}} 32 - (x - 2)$

$43 - (c + 4) \underline{\hspace{1cm}} 43 - c$

$58 - (p - 6) \underline{\hspace{1cm}} 58 - p$

2 How many rectangles are there in the picture? List them all: _____



3 Rank the children of the age line:

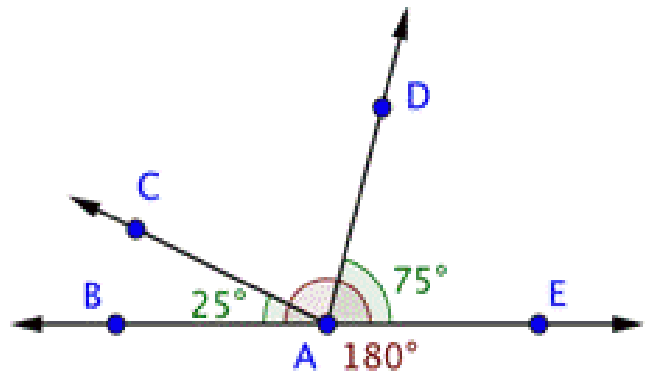
- Angie is older than Arthur
- Bob is younger than Katie
- Carl is the oldest
- Arthur is older than Katie



Homework Review

4 Below is a drawing of a straight angle $\angle BAE$ (remember that a straight angle is always 180°). The angle $\angle DAE$ equals 75° and the angle $\angle BAC = 25^\circ$.

- a) Find an angle $\angle CAD =$ _____
 b) Find an angle $\angle BAD =$ _____
 a) Find an angle $\angle CAE =$ _____



5 Calculate:
 $6 \times 6 \div 6 =$

$7 \div 1 \times 7 =$

$30 \div 30 \times 30 =$

New Material I

Multiplication and division are **inverse operations**.

It means that if we take a number and multiply it by another number and then divide the result by the same number, we will end up with our initial number.

$11 \times 2 \div 2 = 11$

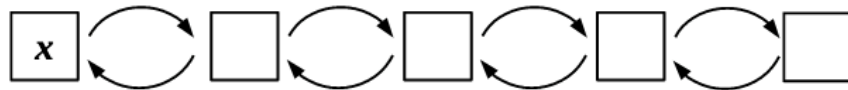
$34 \times 9 \div 9 = 34$

$52 \div 26 \times 26 = 52$

Analyze the operations and undo them to solve the equation:

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	x	\times	5	:	3	:	2	=	5
	x	=							
	x	=							



How to solve equations with division.

To solve for x the following equation: $5x = 25$, we have to “undo” multiplying by 5. So, we have to divide BOTH part of equation (this is an equation, remember?) by 5.

$5x \div 5 = 25 \div 5 \quad \text{and we get} \quad x = 5$

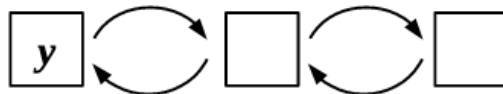
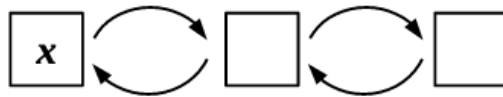
Let's check our work (always do it!): $5 \times x = 25$, using the solution we found, we write:

$5 \times 5 = 25 \text{ or } 25 = 25! \text{ Our solution is correct.}$

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Solve the equations (use drawings):

	x	\times	7	-	2	2	=	4	1	
	x	\times	7	=	4	1	+			
	x	\times	7	=						
	x	=								
	x	=								



	y	:	4	+	2	1	=	2	7

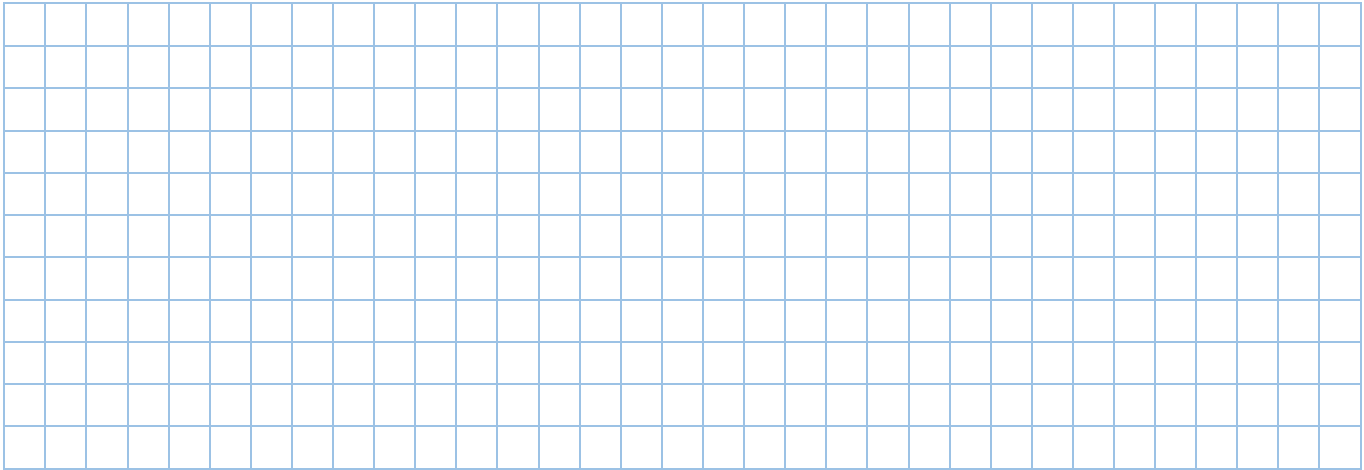
8

Solve for x and check your answer:

a) $8 \div x = 4$

b) $x \div 20 = 2$

c) $x \times 12 = 48$



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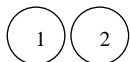
Children were making bracelets. To make 4 bracelets, they need 80 beads, the same number for each bracelet. How many beads do they need to make 5 bracelets?

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- a) Julia and Victoria had 24 candies and they decided to equally divide all candies between two of them. How many candies did each girl get? _____
- b) Then Jonathan came and asked girls to share their candies with him as well. Girls decided to share all 24 candies equally between 3 of them. Is it possible? How many candies will each child get? _____
- c) Then Eli joined them and asked to give him some candies as well. Girls were very kind and decided to share all 24 candies equally between 4 of them. Is it possible? How many candies will each child get? _____
- d) And then Steven and Milan came and ... asked for candies! Now girls have to share their 24 candies with 6 children. Is it possible? How many candies will each child get?

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Mark the order of operations and calculate:



$24 : 6 \times 2 = \underline{\quad}$

$8 \times 3 + 5 \times 4 = \underline{\quad}$

$43 + 20 - 5 = \underline{\quad}$

$18 + 3 : 3 = \underline{\quad}$

$(18 + 3) : 3 = \underline{\quad}$

$36 : (13 - 4) = \underline{\quad}$

REVIEW I

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Calculate using correct units:

$1 \text{ kg} \times 4 = \underline{\hspace{2cm}}$

$1 \text{ m} \times 7 = \underline{\hspace{2cm}}$

$1 \text{ egg} \times 4 = \underline{\hspace{2cm}}$

$3 \text{ l} \times 3 = \underline{\hspace{2cm}}$

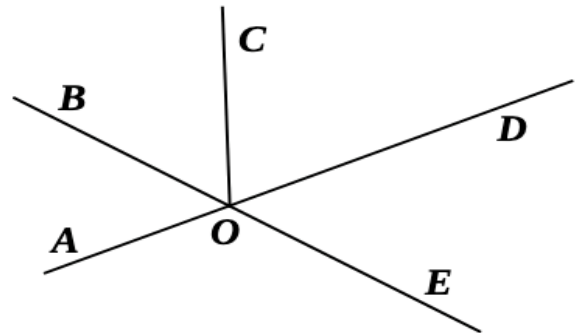
$1 \text{ sec} \times 6 = \underline{\hspace{2cm}}$

$10 \text{ mg} \times 3 = \underline{\hspace{2cm}}$

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Find all pairs of supplementary angles on the drawing. Measure these angles with a protractor. Write down your results. Make sure supplementary angles add up to 180° .

If $\angle AOB = 50^\circ$ then $\angle BOD = \underline{\hspace{2cm}}$

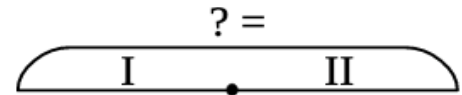


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Choose the correct sketch for each problem, use them and write the expressions:

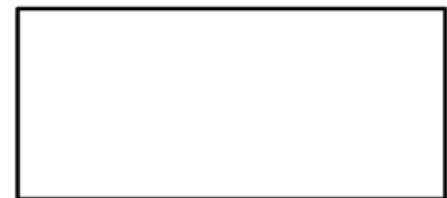
a) There are 5 eggs in a basket. There are b eggs in another basket. How many eggs are in both baskets?

$\underline{\hspace{2cm}}$



b) There are 5 eggs in each of b baskets. How many eggs are in all these baskets?

$\underline{\hspace{2cm}}$



REVIEW II

Quadrilateral

A Quadrilateral has four-sides, it is **2-dimensional** (a flat shape), **closed** (the lines join up), and has **straight** sides.

A quadrilateral that has 2 parallel sides is called trapezoid.

What is the difference between the trapezoid II and the quadrilaterals III, IV, V, and VI? How many parallel sides do these quadrilaterals have?

A quadrilateral that is formed by 2 pairs of the parallel sides is called a parallelogram.

Examine the picture below. What is the difference between the quadrilateral IV and the parallelogram III? How are the sides related to each other?

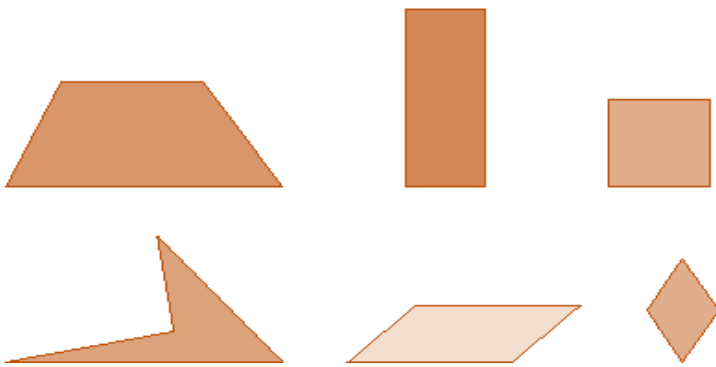
A parallelogram with 4 equal sides is called rhombus.

Is there a parallelogram that has only 3 equal sides? Why, or why not?

Examine the picture below. What is the difference between the quadrilaterals V and VI and the other quadrilaterals on the picture? What kind of angles do they have?

Quadrilateral

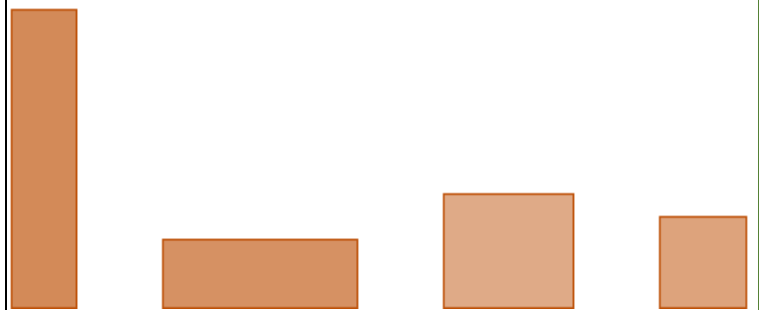
A four-sided polygon.



The sum of the angles of a quadrilateral is 360° degrees .

Rectangle

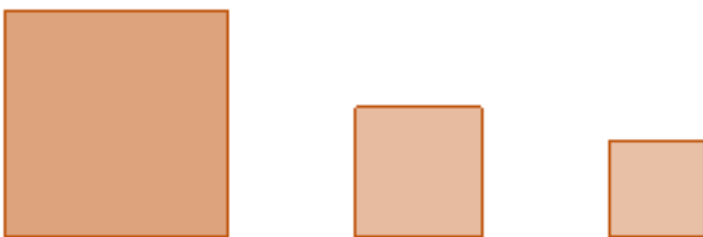
A four-sided polygon with all right angles



The sum of the angles of a rectangle is 360° degrees

Square

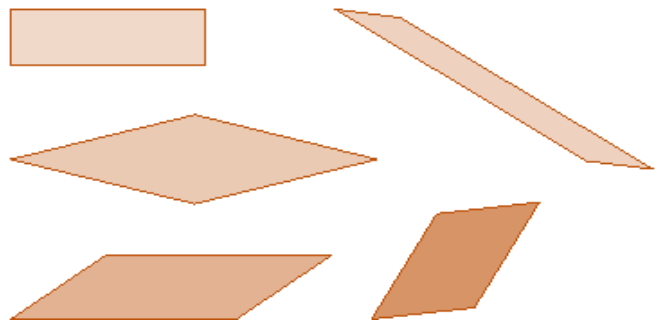
A four-sided polygon with equal-length sides meeting at right angles.



The sum of the angles of a square is 360° degrees

Parallelogram

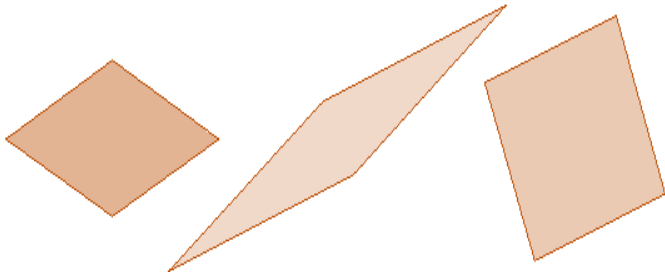
A four-sided polygon with two pairs of parallel sides.



The sum of the angles of a parallelogram is 360° degrees

Rhombus

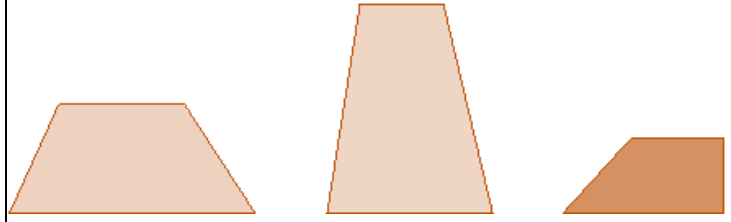
A four-sided polygon with all four sides of equal length



The sum of the angles of a rhombus is 360° degrees

Trapezoid

A four-sided polygon with an exactly one pair of parallel sides. The two sides that are parallel are called the bases of the trapezoid.



The sum of the angles of a trapezoid is 360° degrees

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What shape am I?

- a) four sides; all sides equal; four right angles _____
- b) four sides; opposite sides equal; four right angles _____
- c) four sides; opposite sides parallel; no right angles _____
- d) four sides; exactly two sides parallel _____
- e) four sides; opposite sides equal; no sides perpendicular _____
- f) four sides; opposite sides parallel; adjacent sides perpendicular _____
- g) four sides; all sides equal; no sides perpendicular _____
- h) four sides; no sides parallel; no sides perpendicular _____

Challenge Yourself**16**

Solve each word problem:

- a) A line segment was split into 8 parts. Each part was further split into 5 sections. How many sections was the segment split into?

- b) A watermelon can be balanced on a scale by x apples. An apple can be balanced by q strawberries. How many strawberries are needed to balance a watermelon?

