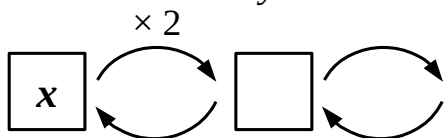


Do in this handout:

1. Use operations to answer the following question:

A man saw a “magic” shop that promised to double the money in his wallet for a small fee, just 48 cents. After he gave in his wallet the money there doubled and he payed the promised 48 c fee. He decided to not stop and gave the wallet back. After the money doubled he payed another 48 c from the wallet. Finally he decided to try it again. After the money doubled, he payed 48 c the third time. As a result his wallet become empty. How much money did he start with?

**Do in your notebook:**

2. Show that ...

... a) $18 - 3 \cdot (2x + 4) = 6 - 6x$

... b) $3 \cdot (x + 2) - \frac{1}{2} \times (6x + 4) = 4$

... c) $(2x - 1) : \frac{1}{2} - (x - 2) = 3x$

3. Solve equations:

a). $2 \times (4y - 3) = 3 \cdot (y + 2) + y - 4$

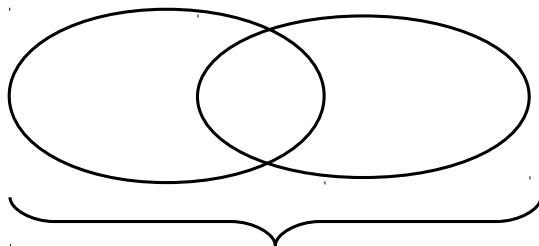
b). $(4x - 12) \times \frac{1}{2} = (2x + 8) \times \frac{1}{2}$

c). $2 \cdot (3x - 1) - (x - 2) = (2x + 8) : 2$

d)*. $(4x - 16) : 8 = (12 - 2x) \cdot \frac{1}{4}$

Answers: (a: $y = 2$, b: $x = 10$, c: $x = 1$, d: $x = 5$)

4. There are 80 penguins in a zoo. $\frac{3}{4}$ of them love tuna. While 47 penguins love red tuna, only 42 love yellow tuna. How many penguins love both kinds of tuna?

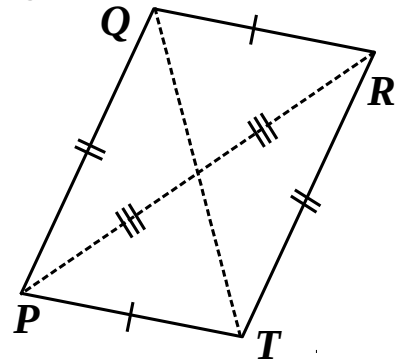


Parallelograms:

Quadrilaterals with 2 pairs of parallel sides are called **parallelograms**.

Properties of parallelograms:

1. The opposite sides of parallelograms are equal;
2. The opposite angles of parallelograms are equal;
3. Diagonals of parallelograms intersect in the middle.



5. Parallelograms are named by listing their vertexes either clockwise or counterclockwise starting from any vertex. How many different ways are there to name a parallelogram **PQRT**?

6. Use a compass and a ruler to find the 4th vertex **D** of the parallelogram **ABCD** below. Make sure that the parallelogram can be properly named **ABCD** (see problem 5).

C.

A.

B.

7. Use properties of parallelograms to plot a straight line parallel to **EF** that passes through point **W**. Remember, you can only use a **compass** and a **straight edge**.

W.

F.

E.