

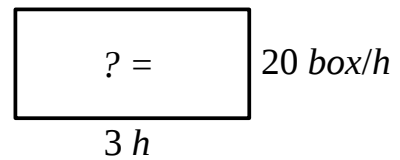
## Homework for Lesson № 27

**1**

Solve the word problems:

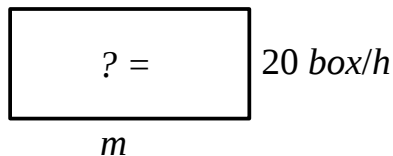
**A.** One robot can pack 20 boxes in an hour.  
How many boxes can it pack in 3 hours?

\_\_\_\_\_



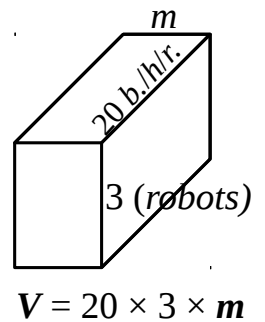
**B.** One robot can pack 20 boxes in an hour.  
How many boxes can it pack in  $m$  hours?

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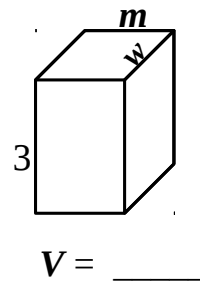
**C.** One robot can pack 20 boxes in an hour.  
How many boxes can 3 robots pack in  $m$  hours?

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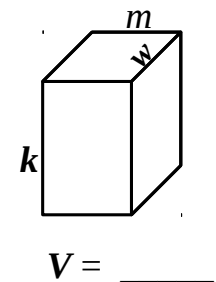
**D.** One robot can pack  $w$  boxes in an hour. How  
many boxes can 3 robots pack in  $m$  hours?

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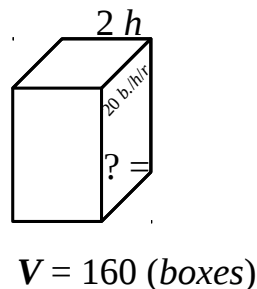
**E.** One robot can pack  $w$  boxes in an hour. How  
many boxes can  $k$  robots pack in  $m$  hours?

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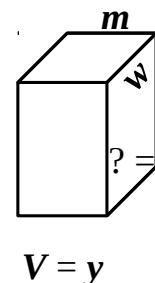
**F.** One robot can pack 20 boxes in an hour. How  
many robots are needed to pack 160 boxes in 2  
hours?

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**G.** One robot can pack  $w$  boxes in an hour. How  
many robots are needed to pack  $y$  boxes in  $m$   
hours?

\_\_\_\_\_



**2** Calculate by guessing a good common denominator when needed:

$$\frac{2}{11} + \frac{1}{11} =$$

$$\frac{2}{5} \times 3 =$$

$$\frac{2}{n} + \frac{3}{n} =$$

$$\frac{5}{8} - \frac{3}{16} =$$

$$\frac{5}{p} \times 3 =$$

$$\frac{5}{4} - \frac{3}{24} =$$

The following three are more difficult. Try to guess good common denominators.

$$\frac{1}{k} - \frac{1}{k \times 2} =$$

$$\frac{6}{m} + \frac{2}{3m} =$$

$$\frac{6}{m} + \frac{5}{8} =$$

**3** Do in your notebook and copy your answers here:

a). Solve the equations:

$$156 - 3x = 24$$

$$12x - 4 = 2$$

$$60 - 96 : x = 52$$

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

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

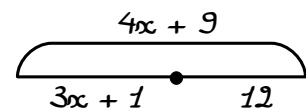
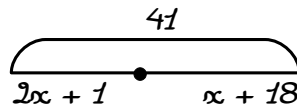
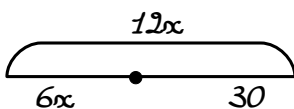
b). Mark the order of operations and evaluate the following expressions:

$$749 \div 749 + 0 \div 319 - 219 \times 0 = \underline{\hspace{4cm}}$$

$$(626 - 108) + (132 - 76 + 204) - (252 - 184) = \underline{\hspace{4cm}}$$

$$626 - (108 + 132) + (76 + 204 - 252) - 184 = \underline{\hspace{4cm}}$$

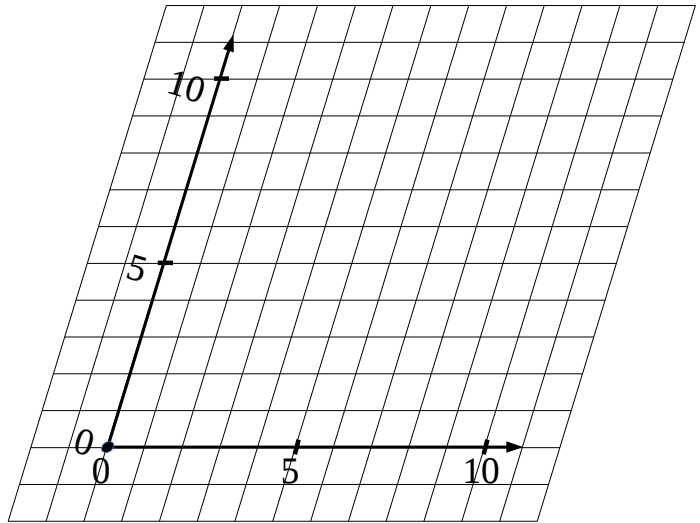
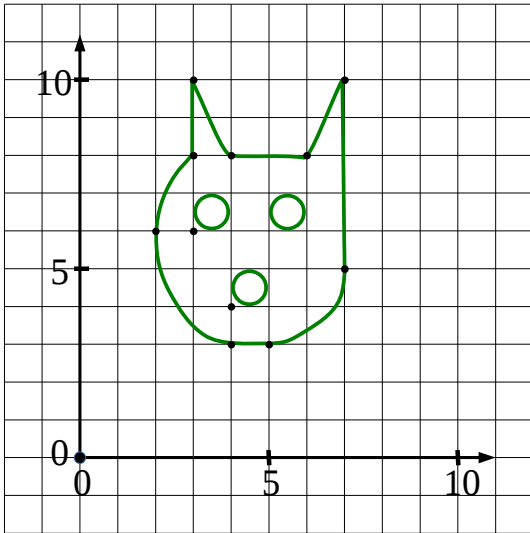
c). Write and solve the equations based on the drawings:



**4** Remove parenthesis:

$$3 \cdot (y + 2x - 1) = \underline{\hspace{4cm}}$$

$$(12x - 6y) : 3 = \underline{\hspace{4cm}}$$

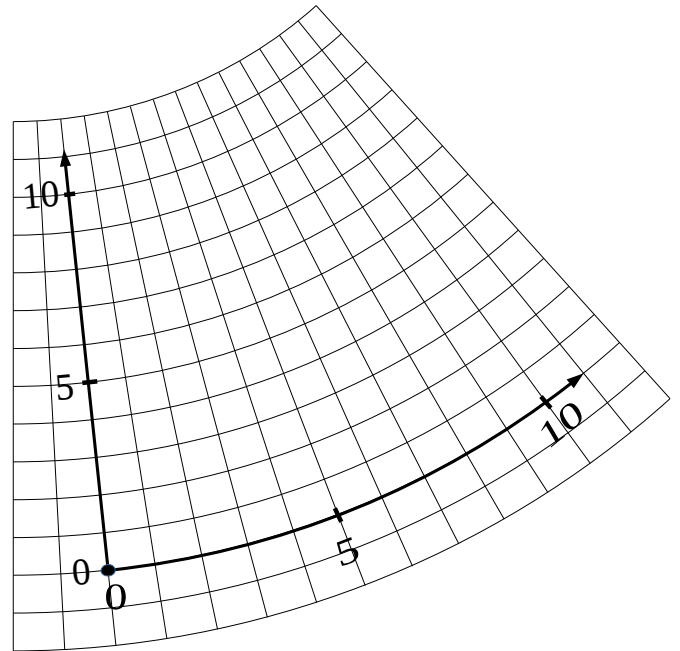


5

Once upon a time Little Joe has decided to become an artist and painted a cat. He didn't know much math, so he painted the cat in a coordinate plane, because the latter looked like a cage (LJ wanted to be on the safe side).

When Pop Eye saw the painting he panicked so the coordinates tilted.

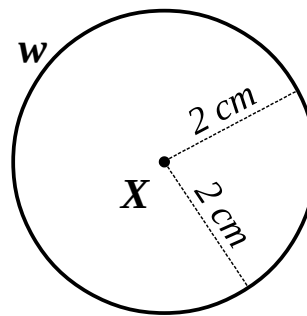
Foxy Tail completely freaked out and coordinates became totally crooked.



Try to plot the transformed cat face in these coordinates. Use some *reference points* to help the task.

6

Point  $A$  is outside of the circle  $w = \text{Circ}(X, 2 \text{ cm})$ . Plot a circle with the center at point  $A$  that has only one intersection point with the circle  $w$ .



*Algorithm:*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_