



1

Luke repeats the same four stickers on a strip. Which is the tenth sticker put by Luke?



(A)

(B)

(C)

(D)

(E)

2

A dragon has 3 heads. Every time a hero cuts off 1 head, 3 new heads emerge. The hero cuts 1 head off and then he cuts 1 off head again. How many heads does the dragon have now?

(A) 4

(B) 5

(C) 6

(D) 7

(E) 8

3

Winnie the Pooh bought 4 apple pies and Eeyore bought 6 cheesecakes. They paid the same and together they paid \$24. How much does 1 cheesecake cost?

(A) 2

(B) 4

(C) 6

(D) 10

(E) 12

Open up parenthesis:

4

$$(56 + s) + (d + 15) =$$

$$k - (b + m) =$$

$$(n + 4) - (a + b + c) =$$

$$(d + f) - (s - w) =$$

$$a - (45 - b) =$$

$$(170 - e) - (80 - a) =$$

5

There are N pencils in the red box and M pencils in the white box. Masha took a pencils from the red box. Monty took b pencils from the white box. Explain the meaning of the following expressions.

a) $N + M$ _____

c) $M - b$ _____

b) $N - a$ _____

d) $a + b$ _____

6

Calculate:

d) $20 \times 30 =$

$15 \times 100 - 15 \times 10 =$

$200 \times 2 - 200 \times 0 =$

e) $50 \times 5 =$

$25 \times 20 - 25 \times 10 =$

$40 \times 5 + 40 \times 10 =$

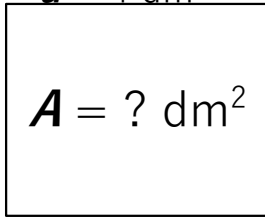
Report the time you spent: _____ minutes



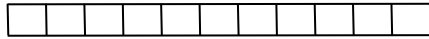
6

Find the area of the rectangles. Write your answer below, don't forget the units of measure!

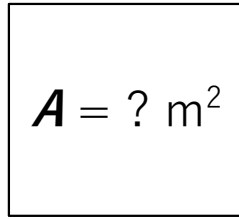
$a = 4 \text{ dm}$



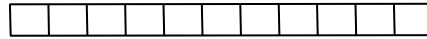
$b = 6 \text{ dm}$



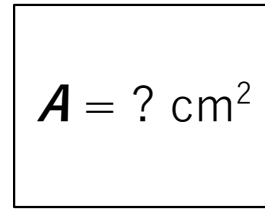
$a = 3 \text{ m}$



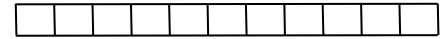
$b = 4 \text{ m}$



$a = 7 \text{ cm}$



$b = 6 \text{ cm}$



7

Fill in missing numbers:

$_ \times 8 = 64$

$_ \times 7 = 49$

$_ \times 6 = 54$

$_ \times 8 = 16$

$_ \times 2 = 20$

$_ \times 7 = 63$

$_ \times 5 = 45$

$_ \times 8 = 40$

$_ \times 4 = 36$

$_ \times 8 = 24$

$4 \times _ = 16$

$6 \times _ = 36$

$10 \times _ = 60$

$9 \times _ = 18$

$3 \times _ = 27$

8

What is the area of the shaded part? Use the given scale (the area of one small square is 1 dm^2 or 100 cm^2).

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

Color the rectangle with the area 10 dm^2 on the grid.

Complete the equalities on the left.

$1 \text{ m} = 10 \text{ dm} = 100 \text{ cm}$
 $1 \text{ m}^2 = 100 \text{ dm}^2$

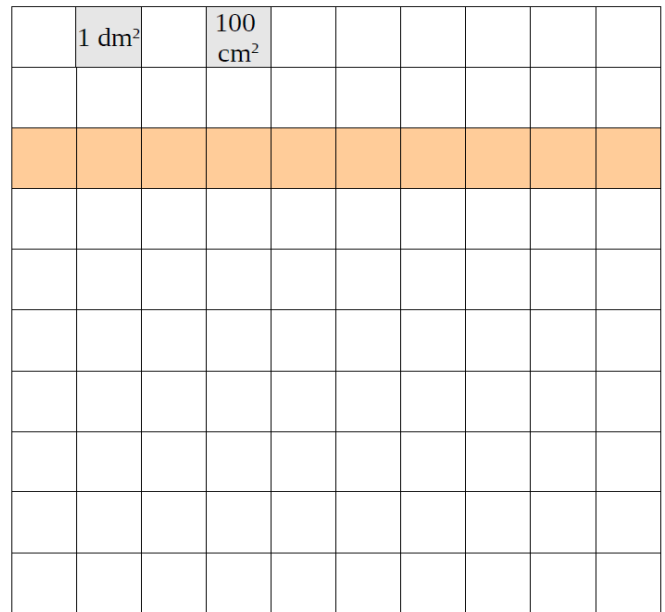
$2 \text{ m}^2 = _ \text{ dm}^2$

$300 \text{ dm}^2 = _ \text{ m}^2$

$500 \text{ dm}^2 = _ \text{ m}^2$

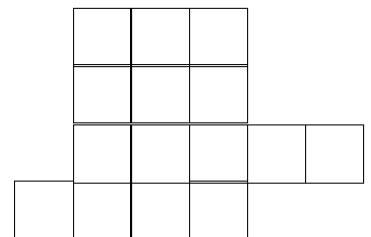
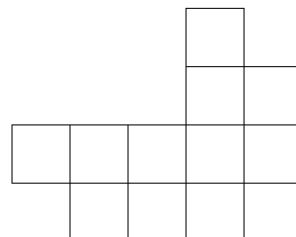
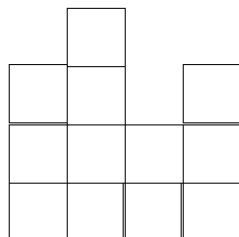
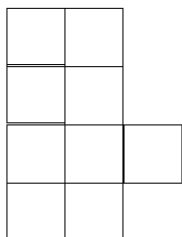
$7 \text{ m}^2 = _ \text{ cm}^2$

$900 \text{ dm}^2 = _ \text{ m}^2$



9

Split the shapes below into 3 identical shapes. Color each part by a different color.



10

a) Find the perimeter and area of the rectangle with the sides 6 cm and 8 cm. Specify the correct units.

P = _____

A = _____

b) Find the perimeter and area of the rectangle with the sides 4 cm and 7 cm.

P = _____

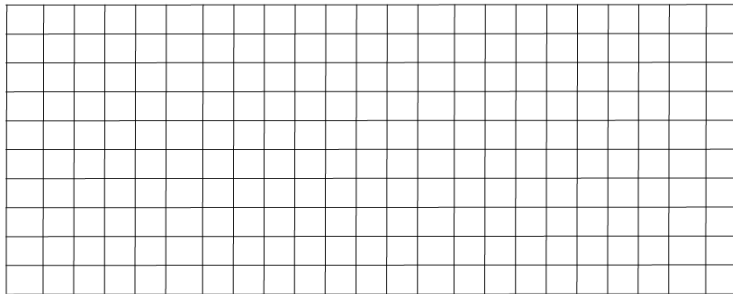
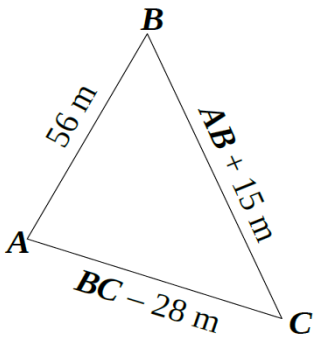
A = _____

c) One side of the rectangle is 6 cm. Its area is 54 cm^2 . What is the other side of the rectangle?

d) One side of a rectangle is 6 cm. Its area is 42 cm^2 . What is the other side of the rectangle?

11

One side of a triangle is 56 m, the second side is 15 m longer than the first. The third side of the triangle is 28 m shorter than the second. What is the perimeter of the triangle?



12

a) Use a ruler to draw a line segment, name it **AB**. Put the points **C** and **D** on the segment **AB**.

How many line segments do you see in the drawing? _____

Name them: _____

b) Use a ruler to draw a ray, name it **AB**. Put the points **C** and **D** on the ray **AB**.

How many rays and line segments do you see in the drawing? _____

Name them: _____

c) Use a ruler to draw a straight line, name it **AB**. Put points **C** and **D** on the line **AB**.

How many rays and line segments do you see in the drawing? _____

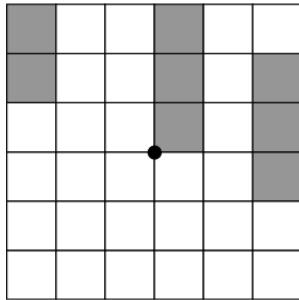
Name them: _____

13

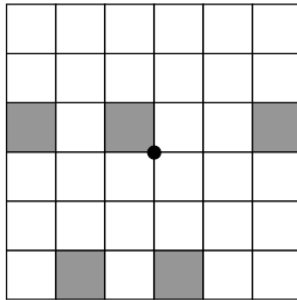
HW 20

Translational symmetry. Area.

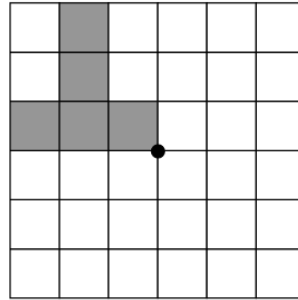
Finish the drawing according to the order of rotation symmetry. Rotation is around the point in the center.



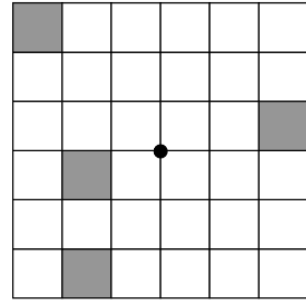
order 2



order 2



order 4

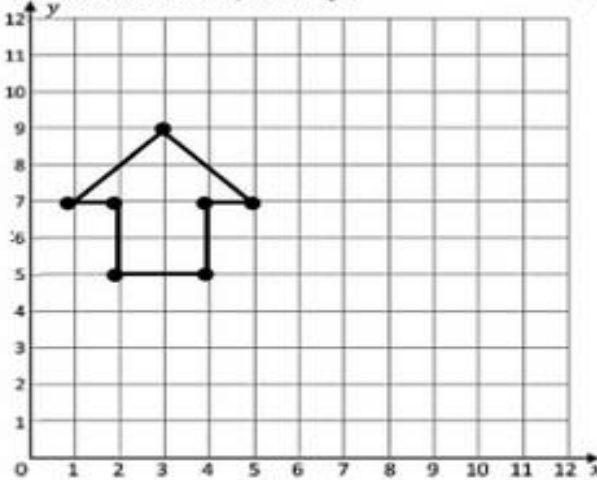


order 4

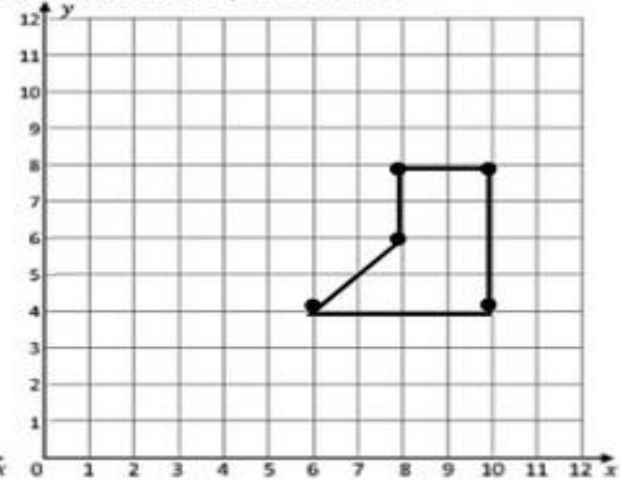
14

Translate the following figures.

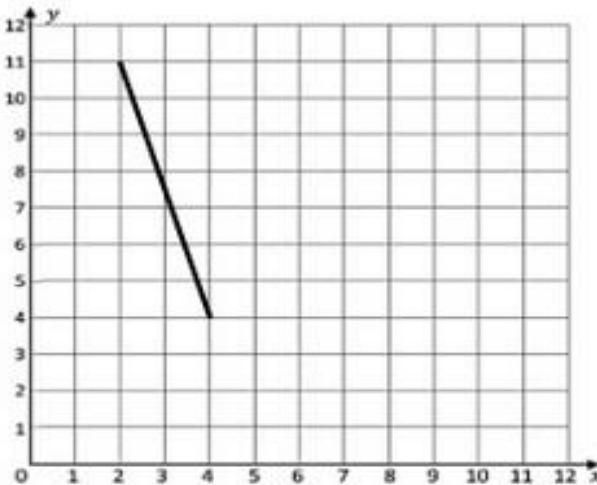
a. Translation: 2 unit up 6 unit right



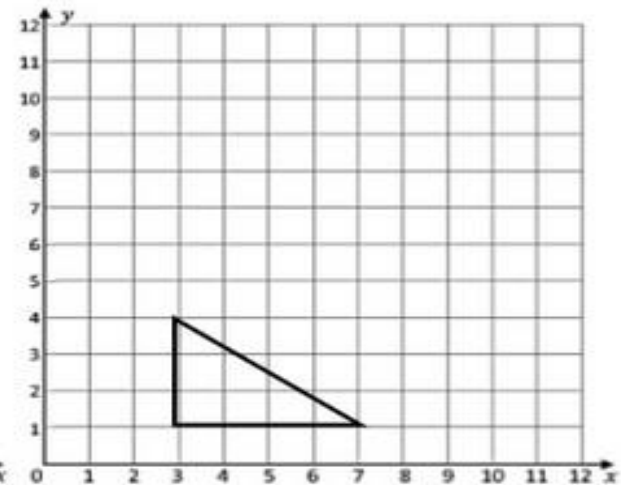
b. Translation: 3 units up and 5 units left



a. Translation: 6 unit right and 2 units down



b. Translation: 7 units up



15

Can you move just two of these matchsticks to form four triangles?

