1. From ray AB, construct (lay off) an angle BAC equal to 45°.

2. From ray AB, construct (lay off) an angle BAC equal to 90°.

3. From ray AB, construct (lay off) an angle BAC equal to 90°.
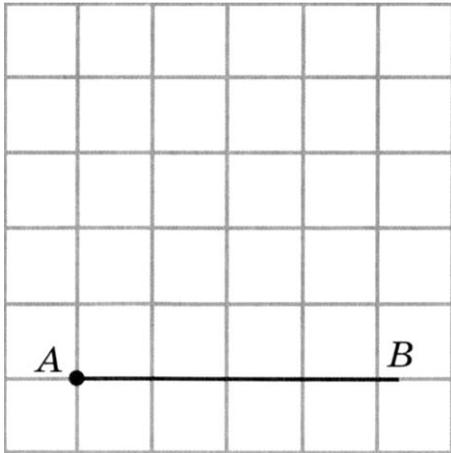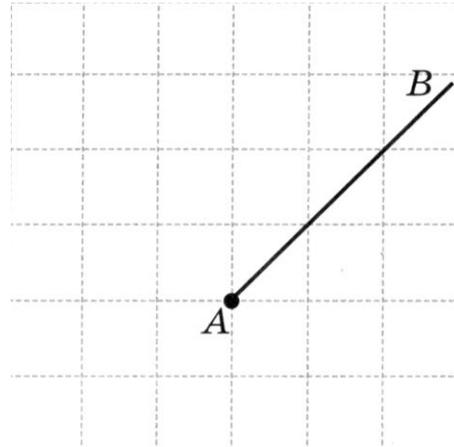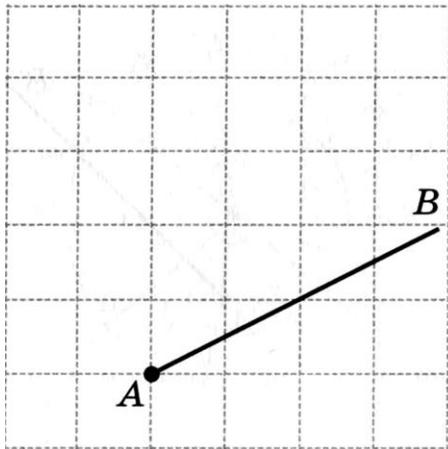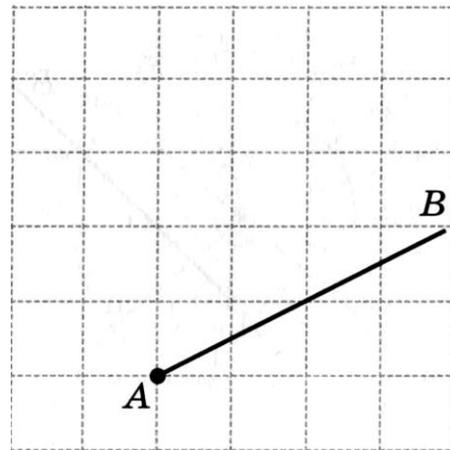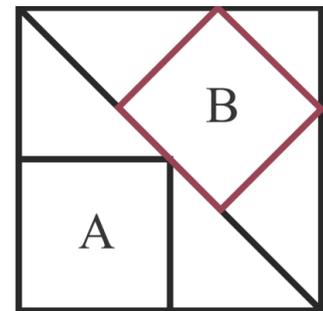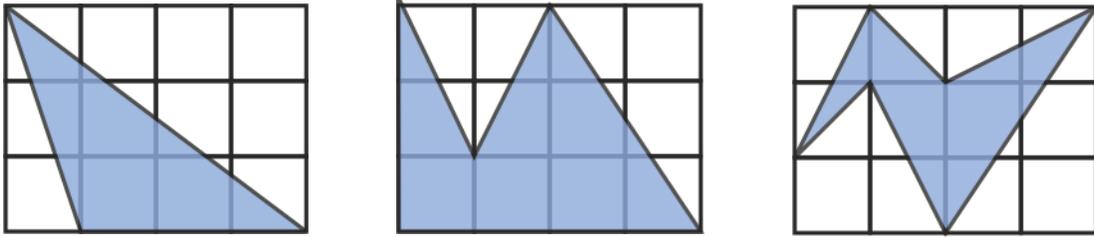
4. From ray AB, construct (lay off) an angle BAC equal to 45°.
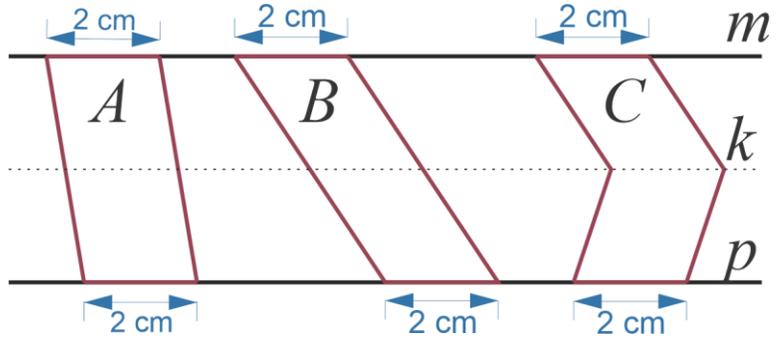
5. Two squares lie inside a large square, as shown in the figure. The side of square A is 12 of the side of the large square. The side of square B is 13 of the diagonal of the large square. What is the area of the square A if the area of the square B is 16?
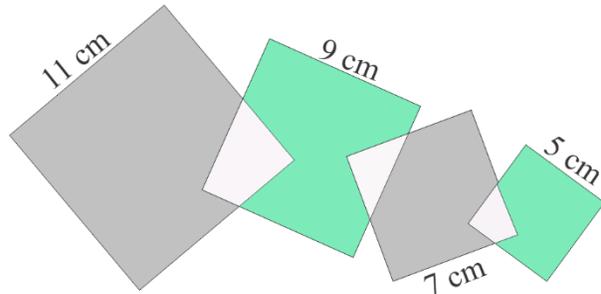
6. Calculate the shaded area; the side of each grid square is 1 cm.

7. Lines m,k,p are parallel. Which polygon has a bigger area?
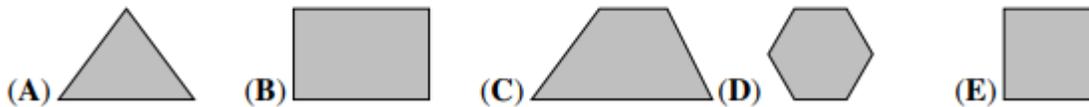

8. Four squares are positioned as shown, overlapped area are white. How much dray area is bigger than the green area.

9.

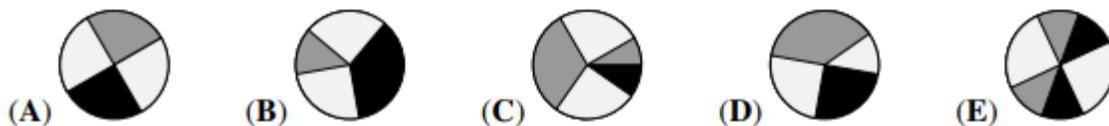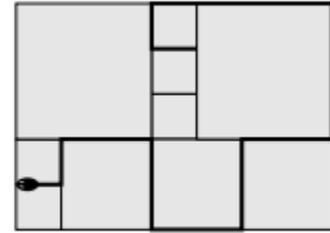Which of the shapes below cannot be divided into two trapezoids by a single straight line?

(A)   (B)   (C)   (D)   (E)

10.

Jonte glued these three pieces of paper on top of .

What figure can he NOT obtain?
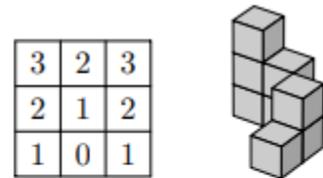
(A)   (B)   (C)   (D)   (E)

11.

The Potters have a patio which is tiled with square
tiles of three different sizes.
The smallest squares have a perimeter of 80 cm each.
A snake rests on the patio, as shown in the diagram.

What is the length of the snake?

(A) 380 cm   (B) 400 cm   (C) 420 cm   (D) 440 cm   (E) 1680 cm

12. x

Martha chose one of the five structures below and
combined it with the structure on the right.
The table shows the number of cubes in each column
in the combined structure when seen from above.
Which of the five structures did Martha choose?

3	2	3
2	1	2
1	0	1

(A)   (B)   (C)   (D)   (E)

13.

In the multiplication shown A, B, C, D and E represent different digits.

$$\begin{array}{r} 1\ A\ B\ C\ D\ E \\ \times \qquad\qquad 3 \\ \hline A\ B\ C\ D\ E\ 1 \end{array}$$

If the multiplication is correct, what is the letter that has a value equal to 8?

(A) A   (B) B   (C) C   (D) D   (E) E