CHAPTER 6: SQUARES AND RECTANGLES

Level 1

Exercise 1

1. Read the properties listed below. Tick the properties that each shape has.

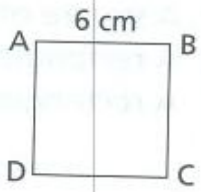
Property	Shape	
	Square	Rectangle
It has four sides.		
All sides are equal in length.		
Only the opposite sides are equal in length.		
It has 2 pairs of parallel sides.		
All angles are right angles.		

2. Figure ABCD is a square.

AB = 6 cm

BC = _____ CD = _____

AD = _____ ∠ABC = _____

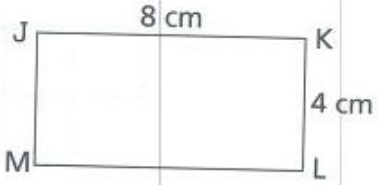


3. Figure JKLM is a rectangle.

JK = 8 cm KL = 4 cm

LM = _____ JM = _____

∠KLM = _____

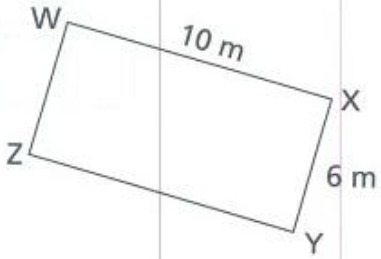


4. Figure WXYZ is a rectangle.

WX = 10 m XY = 6 m

YZ = _____ WZ = _____

∠WZY = _____

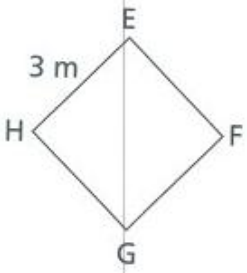


5. Figure EFGH is a square.

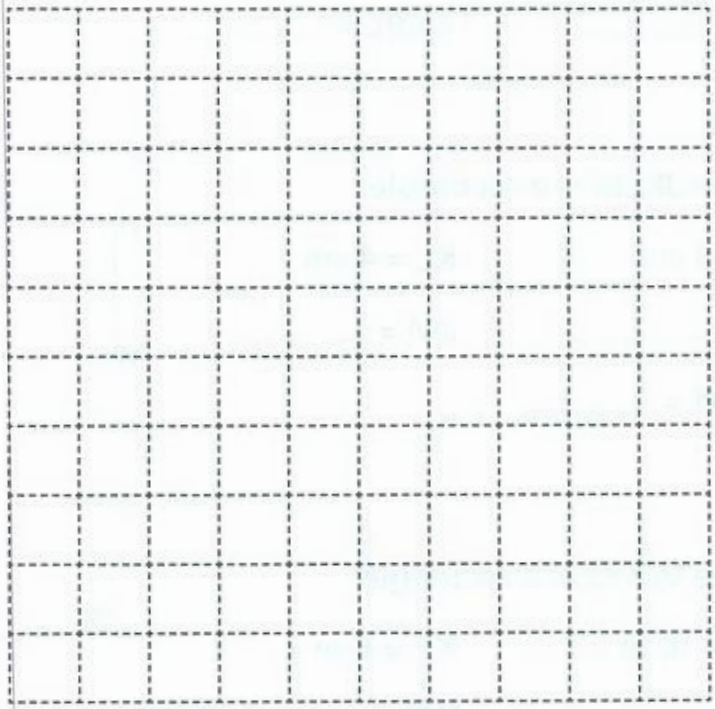
EH = 3 m

EF = _____ FG = _____

GH = _____ ∠HEF = _____



6. On the grid provided, draw the following squares and rectangles.
   (a) A square of side 2 units.
   (b) A rectangle of length 2 units and breadth 3 units.
   (c) A rectangle of length twice its breadth. Its length is 6 units.

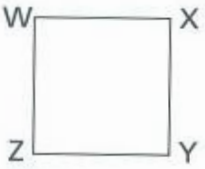


Exercise 2

1. List the two pairs of parallel lines in the square WXYZ.

_____ // _____

_____ // _____



2. List the two pairs of parallel lines in the rectangle CDEF.

_____ // _____

_____ // _____

The figure below is made up of two rectangles, PQSR and PTUV. Use it to answer questions 3 and 4.

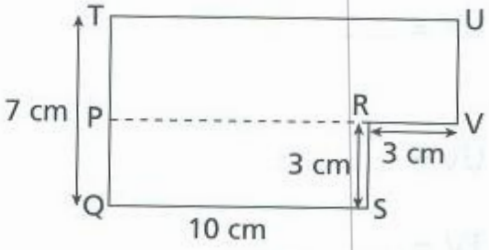
3. PR = _____

   TU = _____

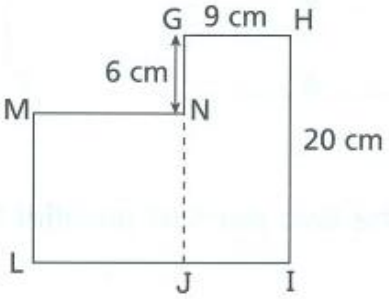
4. PQ = _____

   PT = _____

   UV = _____



The figure below is made up of a square, JLMN and a rectangle, GHIJ. Use it to answer questions 5 and 6.



5. JN = _____

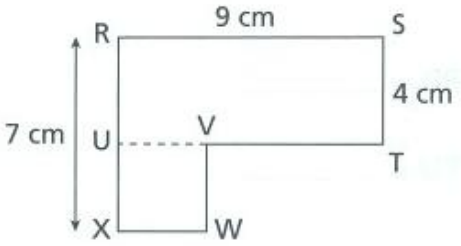
   ML = _____

6. MN = _____

   JL = _____

   IL = _____

The figure below is made up of a square, UVWX and a rectangle, RSTU. Use it to answer questions 7 and 8.



7. RU = _____

   UX = _____

8. UV = _____

   TV = _____

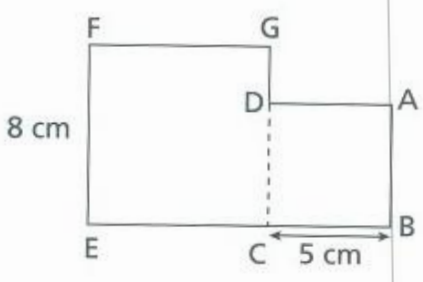
The figure below is made up of two squares, ABCD and CEFG. Use it to answer questions 9 and 10.

9. CD = _____

   DG = _____

10. CE = _____

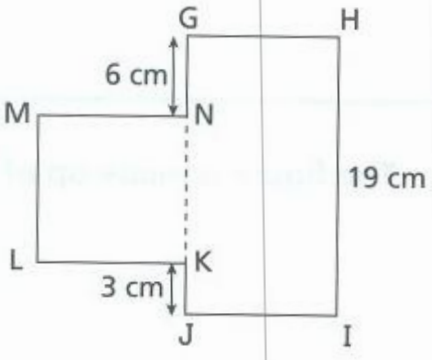
    BE = _____



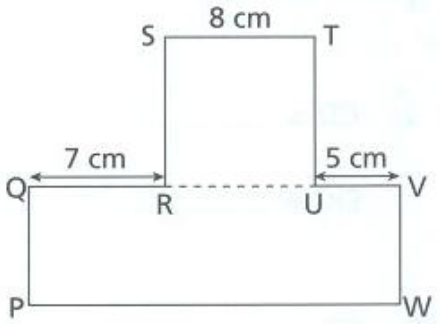
Level 2

Exercise 1

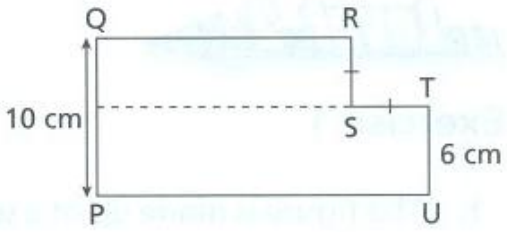
1. The figure is made up of a square and a rectangle. Find the length of LM.



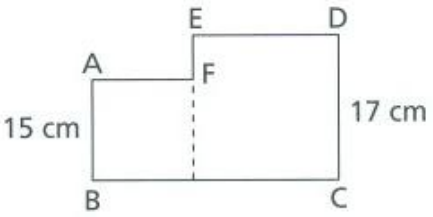
2. The figure is made up of a square and a rectangle. Find the length of PW.



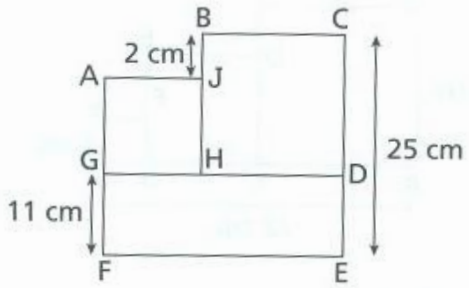
3. The figure is made up of two rectangles. Find the length of ST.



4. The figure is made up of two squares. Find the length of BC.



The figure is made up of two squares, AGHJ and BCDH, and a rectangle DEFG. Use it to answer questions 5 to 7.

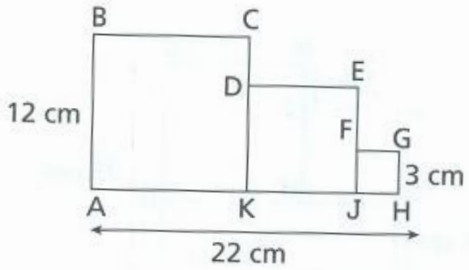


5. Find the length of CD.

6. Find the length of AG.

7. Using the results from questions 5 and 6, find the length of EF.

The figure is made up of three squares, ABCK, DEJK and FGHJ.
Use it to answer questions 8 to 10.



8. (a) Find the length of BC.

(b) Find the length of FG.

9. Find the length of DE.

10. (a) Find the length of EF.

(b) Find the length of CD.

Exercise 2

Choose the correct answer and write its number in the bracket provided.

1. Which of the following statements about the figure shown is correct?

(1) It has exactly two pairs of parallel lines.
(2) It is a 4-sided figure.
(3) It has exactly two right angles.
(4) All sides are equal. ( )

2. Which figure has the property of 'all sides being equal'?

(1) 

(2) 

(3) 

(4) 

( )

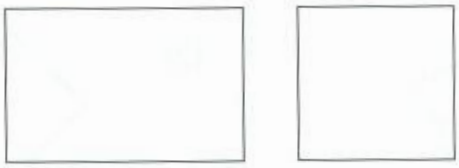
3. Observe the figure below. Which property does the figure have?

(1) All sides are equal.
(2) Exactly one pair of parallel sides.
(3) All angles are right angles.
(4) Opposite sides are equal. ( )

4. Observe the figure below. Which property does the figure have?

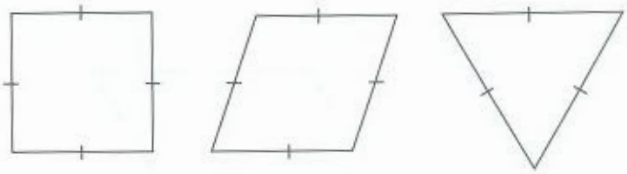
(1) Opposite sides are equal.
(2) Exactly one pair of parallel sides.
(3) Exactly two pair of parallel sides.
(4) All sides are equal. ( )

5. Observe the two figures below. Which property do both of them have?



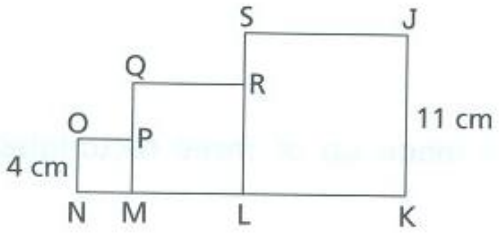
(1) All angles are right angles.
(2) Exactly two right angles.
(3) Exactly one pair of parallel sides.
(4) All sides are equal. ( )

6. Observe the three figures below. Which property do both of them have?



(1) They have four sides.
(2) Exactly two pairs of parallel sides.
(3) All angles are right angles.
(4) All sides are equal. ( )

The figure below is made up of three squares. Use it to answer questions 7 and 8.



7. Given that the length of QM is twice as long as the length of ON, what is the length of SR?

(1) 7 cm (2) 8 cm
(3) 3 cm (4) 4 cm ( )

8. What is the length of KN?

(1) 15 cm (2) 22 cm
(3) 23 cm (4) 27 cm ( )

9. In the rectangle below, the breadth is $\frac{3}{5}$ of the length. If the length is 15 cm, what is the breadth?

(1) 9 cm (2) 8 cm
(3) 6 cm (4) 5 cm ( )

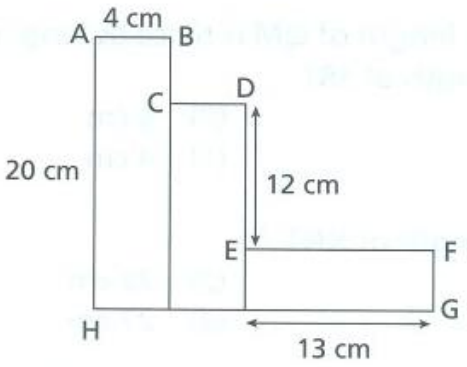
10. In the rectangle below, the breadth is $\frac{3}{10}$ of the length. If the length is 30 cm, what is the breadth?

(1) 9 cm (2) 10 cm
(3) 3 cm (4) 13 cm ( )

Level 3

Exercise 1

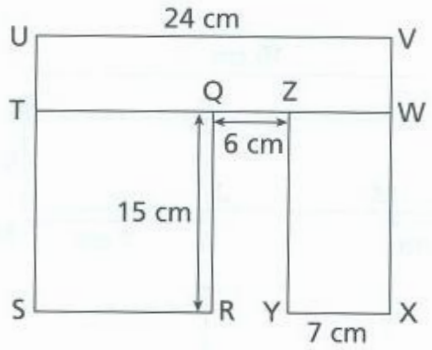
The figure below is made up of three rectangles. Use it to answer questions 1 and 2.



1. Given that AB = CD, find the length of GH.

2. Given that BC = FG, find the length of FG.

ne figure below is made up of three rectangles. Use it to answer questions 3 to 5.

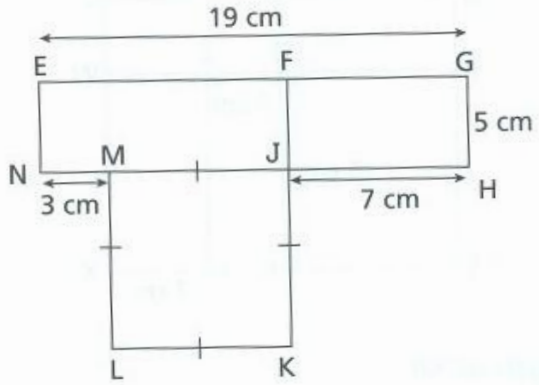


3. Find the length of SR.

4. Given that QR is thrice as long as UT, find the length of UT.

5. Hence, find the length of VX.

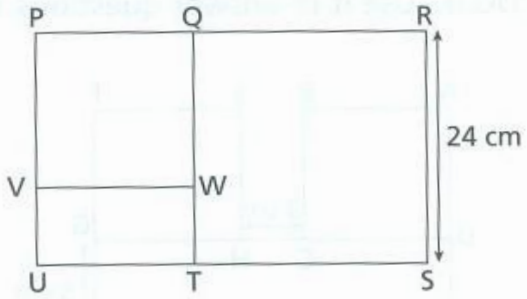
The figure below is made up of a square and two rectangles. Use it t answer questions 6 and 7.



6. Find the length of LK.

7. Find the length of FK.

he figure below is made up of two squares, RSTQ and PQWV, and a rectangle TUVW. Use it to answer questions 8 to 10.



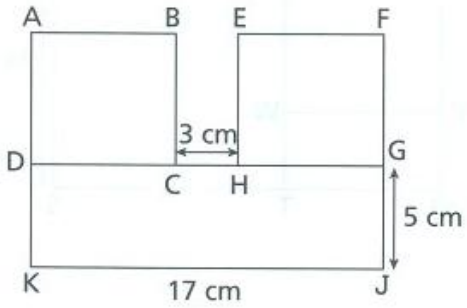
8. Given that the length of PV is $\frac{2}{3}$ of the length of RS, find the length of PV.

9. Find the length of VU.

10. Find the length of SU.

Exercise 2

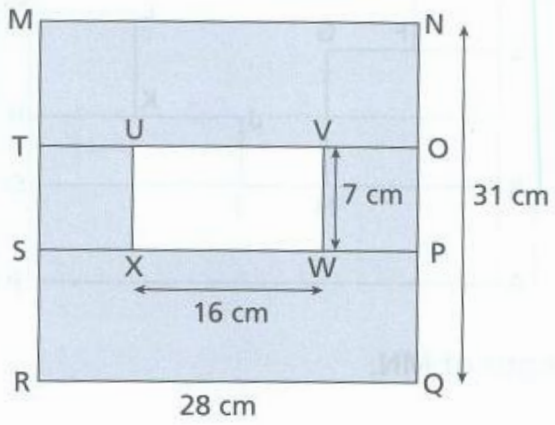
The figure below is made up of two similar squares, ABCD and EFGH and a rectangle DGJK. Use it to answer questions 1 and 2.



1. Find the length of AB.

2. Find the length of AK.

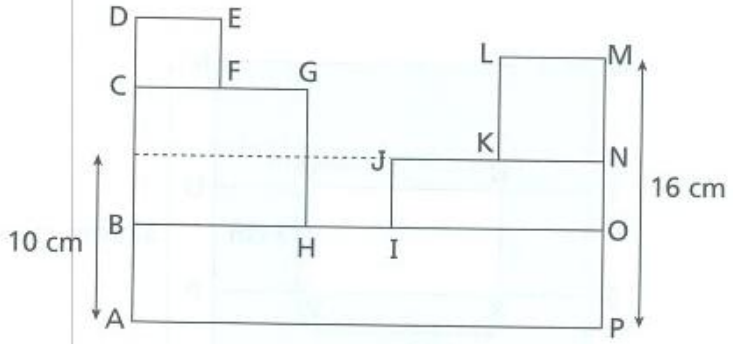
he figure below is made up of four rectangles. Use it to answer questions 3 and 4.



3. Given that OV = UT, find the length of UT.

4. Given that MT = SR, find the length of SR.

The figure below is made up of four rectangles and a square. Use it t answer questions 5 to 8.



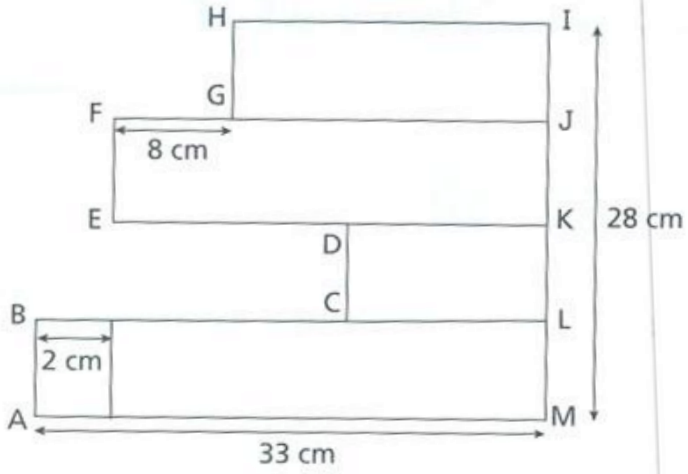
5. Find the length of MN.

6. Given that KLMN is a square and the length of JN is twice as long as the length of LM, find the length of JN.

7. Given that the length of KN is $\frac{2}{9}$ of the length of AP, find the length of AP.

8. Given that DE = FG = HI, find the length of CG.

he figure below is made up of five rectangles. Use it to answer questions 9 and 10.



9. Given that the length of IJ is $\frac{1}{4}$ of the length of IM, find the length of JM.

10. Given that the length of FG is $\frac{1}{2}$ of the length of DE, find the length of DK.