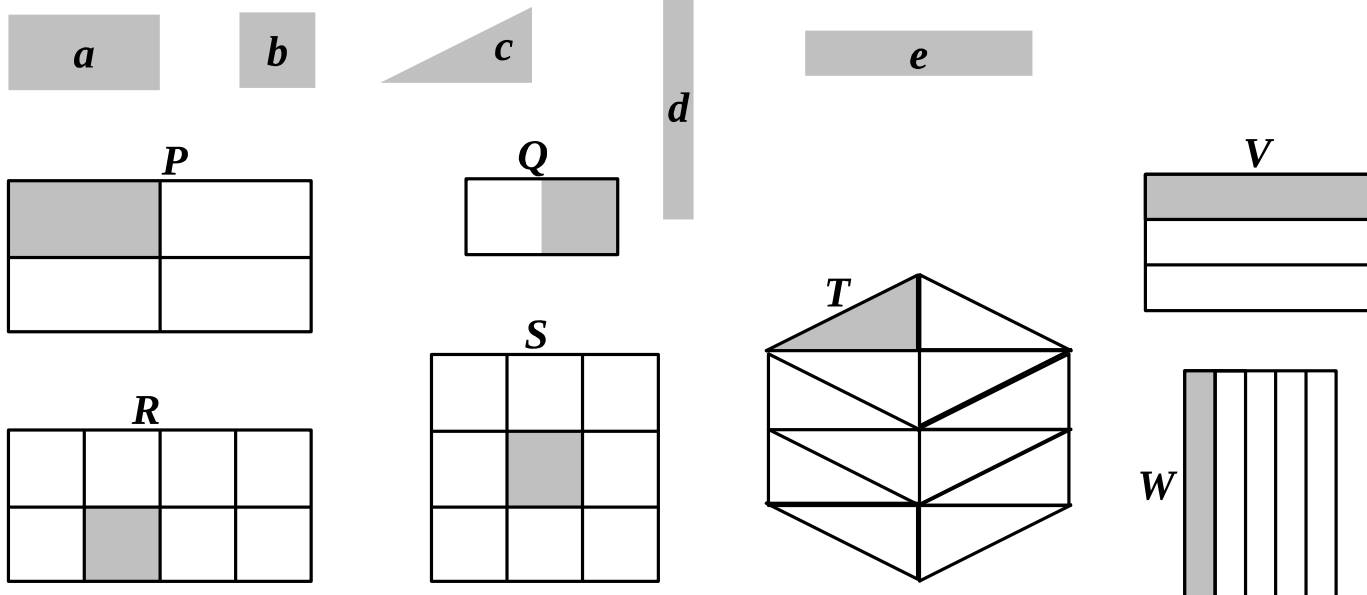


Measures and Fractions of Areas:

3



$$P = 4a$$

$$a = \frac{1}{4} P$$

$$Q = \square b$$

$$b = Q$$

$$R = \square b$$

$$b = R$$

$$S = \square b$$

$$b = S$$

$$T = \square c$$

$$c = T$$

$$V = \square e$$

$$e = V$$

$$W = \square d$$

$$e = W$$

To find one n -th fraction of a number or any other object this object has to be divided into n equal parts.

For example:

One of the ways to find one n -th fraction of a rectangle is to cut it into n equal strips.

4

$$1 : 2 =$$



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

$$1 : 3 =$$



$$\frac{1}{3} \times 3 =$$

$$1 : 5 =$$



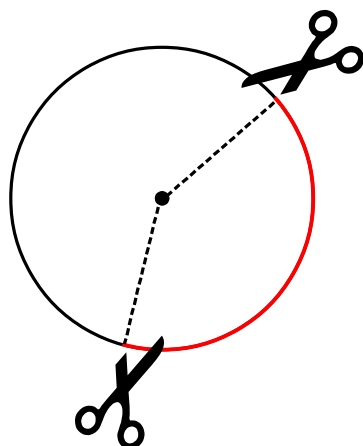
$$\frac{1}{5} \times 5 =$$

$$1 : 7 =$$

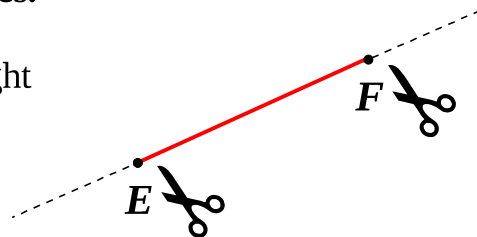


$$\frac{1}{7} \times 7 =$$

arcs: subsets of circles.



A subset of points of a straight line limited by two points is called a line segment.

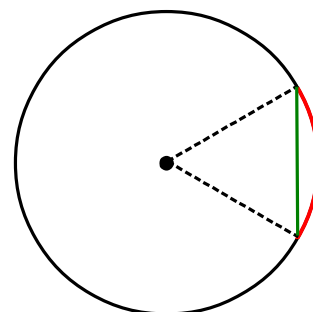
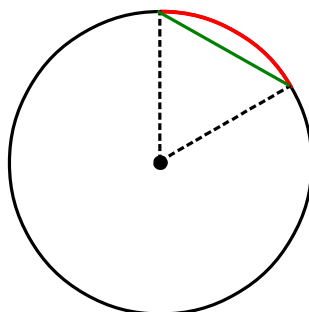


A subset of points of a circle limited by two points is called an arc.

Protractors use sizes of arcs as measures of the corresponding angles.

A line segment connecting the ends of an arc is called a **chord**

Equal arcs of the same circle are connected by equal chords.



5

Find point **Z** such that the arc limited by points **X** and **Z** is equal to the arc limited by points **A** and **K** (red).

Remember, $|XZ| = |AK|$!

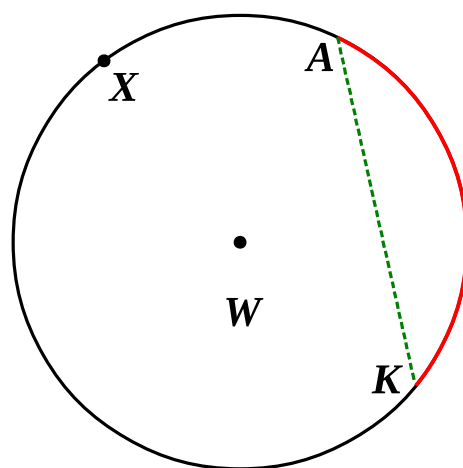
1. _____
2. _____
3. _____

Measure angles and compare

$\angle AWK =$ _____

$\angle XWZ =$ _____

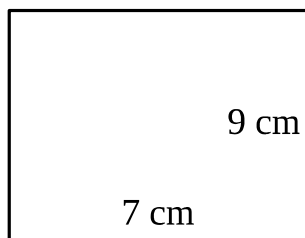
$\angle AWK \square \angle XWZ$



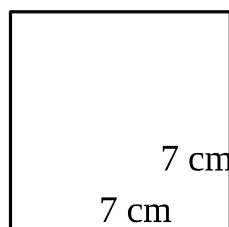
Perimeter:

Perimeter of a polygon is the sum of the lengths of *all* its sides.

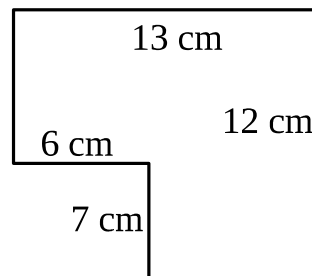
- 6 Calculate “missing sides” where needed to find perimeters of these shapes:



$$P =$$

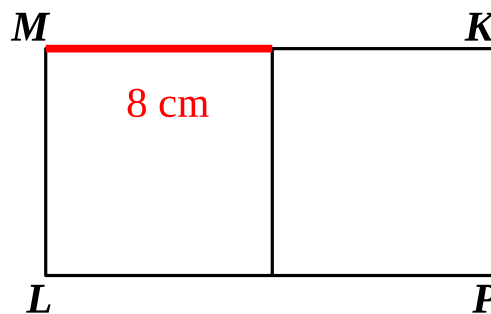
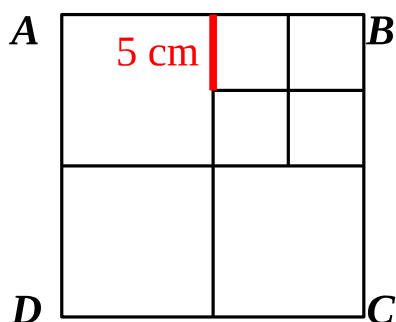


$$P =$$



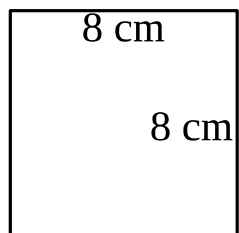
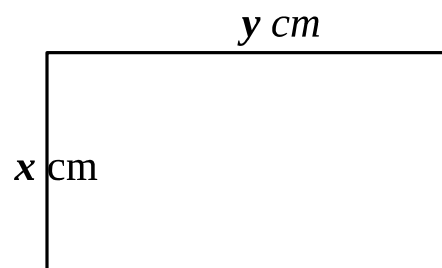
$$P =$$

- 7 Calculate the perimeter of the square **ABCD** and the rectangle **MKPL** if you know the length of the red side and that both shapes consist only of squares.

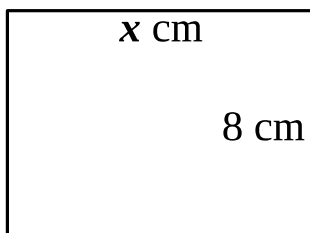


- 8 Write the expressions for the perimeter of given rectangles:

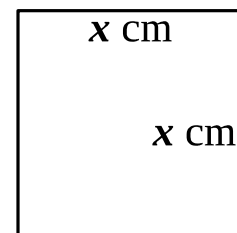
$$P = \underline{\hspace{10em}}$$



$$P = \underline{\hspace{10em}}$$



$$P = \underline{\hspace{10em}}$$



$$P = \underline{\hspace{10em}}$$

9

Solving equations via replacement:

$$72 : (x - 2) = 9$$

$$z = x - 2$$

$$72 : z = 9$$

$$z = 72 : 9$$

$$z = 8$$

$$x - 2 = 8$$

$$x = 8 + 2$$

$$x = 10$$

$$72 : (10 - 2) =$$

$$= 72 : 8 = 9 \quad \checkmark$$

$$72 : (x - 2) = 9$$

$$z = x - 2$$

1. Simplify the original equation
2. Solve the simplified equation
3. Go back to the original unknown
4. Check your answer

$$72 - (8 : x) = 68$$

$$72 - (8 : x) = 68$$

$$z =$$

10

The price of each bus connection is plotted on the map. Help Foxy tail to find the cheapest way to his friend.

