

ONE DIMENSIONAL CONVERSIONS &

PERIMETER

ONE DIMENSIONAL CONVERSIONS

Let's do a quick recap on One Dimensional Conversions:

km
kilometer

hm
hectometer

dam
decameter

m
meter

dm
decimeter

cm
centimeter

mm
millimeter

ONE DIMENSIONAL CONVERSIONS

Each unit of length is separated by a factor of 10

This means that **1m = 10dm**.

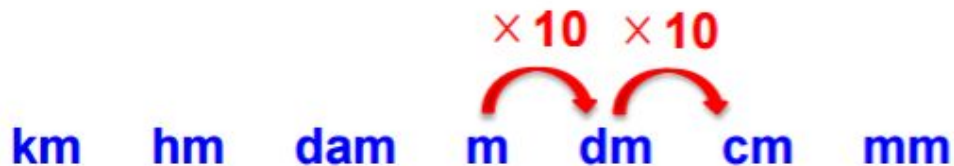


And **10cm = 1dm**.



ONE DIMENSIONAL CONVERSIONS

If we move **2 places** along the units list



$$1\text{m} = 10 \times 10 \times 1\text{cm}$$

or

$$1\text{m} = 100\text{ cm}$$

ONE DIMENSIONAL CONVERSIONS

For example, **1.257 dm = ? cm**

Since we are converting dm to **cm**, we need to **multiply 1.257** by **10**.

$$1.257 \times 10 = \mathbf{12.57}$$

So, **1.257 dm = 12.57 cm**

PERIMETER OF REGULAR POLYGONS

In order to calculate the perimeter of any of the regular polygons, we will use the formula:

$$P = (n)(b)$$

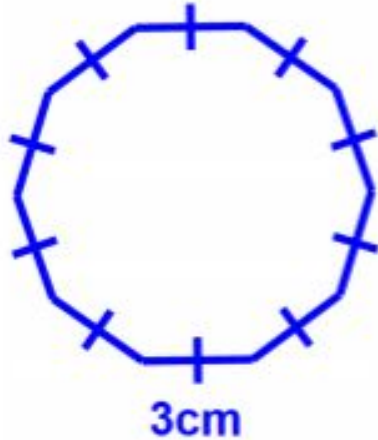
"P" is the Perimeter

"n" is the number of sides

"b" is the side length

Let's try an example using this formula.

EXAMPLE: PERIMETER OF REGULAR DECAGON



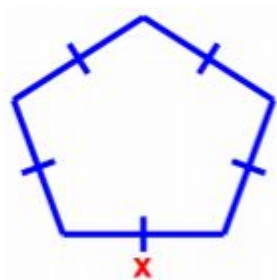
$$P = (n)(b)$$

$$P = (10)(3cm)$$

$$P = 30cm$$

EXAMPLE 2: FIND X

The perimeter of the regular pentagon given below is 35cm. Determine the value of **x**.



First, we state the information that we know about the regular pentagon.

$$P = 35\text{cm} \quad n = 5 \quad b = x$$

Next, we state the formula to calculate the perimeter (P) of a regular pentagon.

$$P = (n)(b)$$

EXAMPLE 2: CONTINUED

Finally, we calculate the value of **x**.

$$P = (n)(b)$$

$$35cm = (5)(x)$$

$$\frac{35cm}{5} = \frac{(5)(x)}{5}$$

$$7cm = \frac{\cancel{5}(x)}{\cancel{5}}$$

$$x = 7cm$$

So, all of the sides of the regular pentagon measure **7cm** in length.

HOMEWORK

Math 3000: Pages 157 – 158 #1,2,3,5,6,7,9

Assignment on MHS