

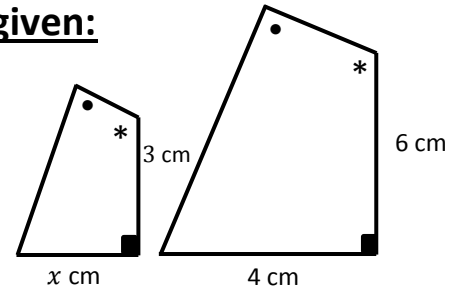
Model test in Geometry
For the 1st secondary stage – First term 2018 / 2019
Merge students

Answer the following questions

First Question: Choose the correct answer from those given:

- (1) In the opposite figure:
If the two polygons are similar, then
 $x = \dots\dots\dots \text{ cm}$

- (a) 2 (b) 3 (c) 4



- (2) If k is the factor of similarity for the two polygons P_1, P_2 and $P_1 \cong P_2$, then

- (a) $0 < k < 1$ (b) $k = 1$ (c) $0 < k$

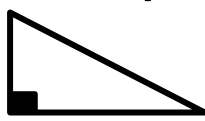

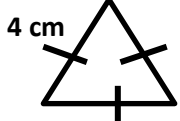
- (3) If $\triangle ABC \sim \triangle XYZ$ and $m(\angle Y) = 30^\circ, m(\angle A) = 70^\circ$, then
 $m(\angle C) = \dots\dots^\circ$

- (a) 70 (b) 80 (c) 100

- (4) If the ratio between the perimeters of two similar polygons is 1 : 4, then the ratio between their areas is

- (a) 1 : 2 (b) 1 : 4 (c) 1 : 16

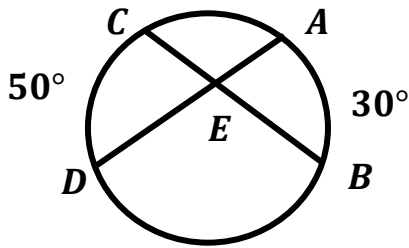
- (5) The triangle  is similar to the triangle

- (a)  (b)  (c) 

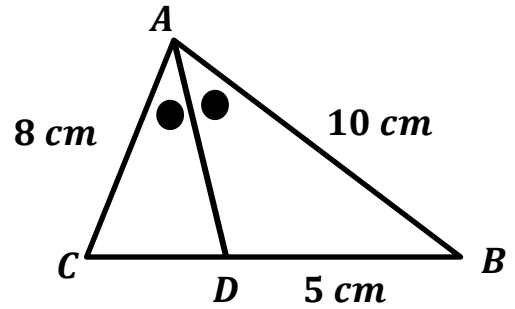
Second Question: Complete the following:

- (1) The interior and the exterior bisector for an angle in a triangle are
- (2) If the ratio between the lengths of two corresponding sides in two similar polygons equals 2 : 3 and the perimeter of the small polygon = 20 cm, then the perimeter of the large polygon = cm
- (3) If the power of point A with respect to circle M equals zero, then the point A lies the circle .

- (4) In the following figure:
 $m(\angle AEB) = \dots\dots\dots^\circ$



- (5) In the following figure :
 $DC = \dots\dots\dots \text{ cm}$



Third Question: Match from column A with the suitable from column B

Column (A)

Column (B)

<p>(1) In the opposite figure: $\frac{BD}{DC} = \dots\dots\dots$</p>		<p>■</p>	<p>■ $BD \times BC$</p>
<p>(2) In the following figure: $\frac{BD}{DC} = \dots\dots\dots$</p>		<p>■</p>	<p>■ $\frac{AB}{AC}$</p>
<p>(3) In the following figure: $(AD)^2 = \dots\dots\dots$</p>		<p>■</p>	<p>■ $\frac{BE}{EA}$</p>
<p>(4) In the following figure: $(AB)^2 = \dots\dots\dots$</p>		<p>■</p>	<p>■ $\frac{(m(\widehat{AB}) - m(\widehat{DC}))}{2}$</p>
<p>(5) In the following figure: $m(\angle E) = \dots\dots\dots$</p>		<p>■</p>	<p>■ $BD \times BC$</p>

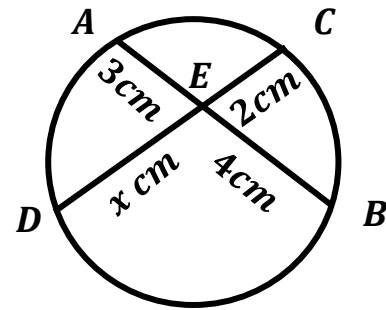
Fourth Question: Complete to find the value of x in each of the following:

(1) In the following figure:

$$EA \times EB = EC \times \dots\dots$$

$$3 \times 4 = 2 \times \dots\dots$$

$$x = \dots\dots \text{ cm}$$

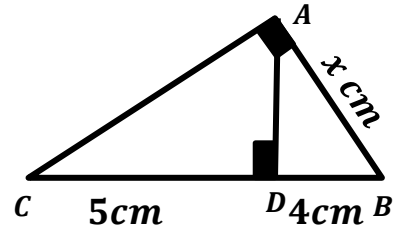


(2) In the following figure:

$$(AB)^2 = BD \times \dots\dots$$

$$(AB)^2 = 4 \times \dots\dots$$

$$x = \dots\dots \text{ cm}$$

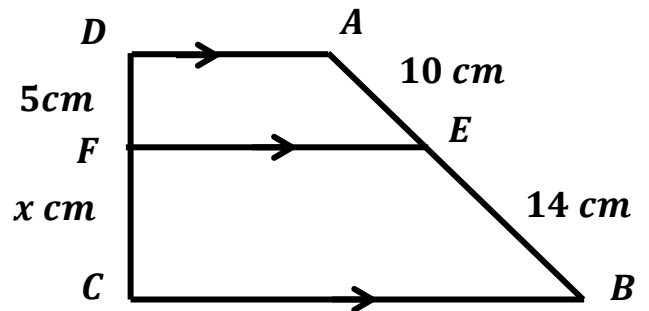


(3) In the following figure:

$$\frac{5}{x} = \frac{10}{\dots\dots}$$

$$x = \frac{5 \times \dots\dots}{10}$$

$$x = \dots\dots \text{ cm}$$

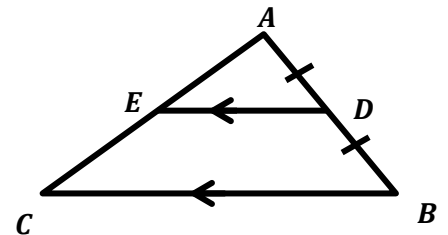


(4) In the following figure:

If $\frac{\text{area of } \triangle ADE}{\text{area of } \triangle ABC} = x$

,then $\frac{\text{area of } \triangle ADE}{\text{area of } \triangle ABC} = \left(\frac{AD}{2 \dots\dots}\right)^2 = \dots\dots$

$$x = \dots\dots \text{ cm}$$



(5) In the following figure:

$$\frac{AE}{EC} = \frac{x}{\dots\dots}$$

$$x = \frac{3 \times \dots\dots}{6}$$

$$x = \dots\dots \text{ cm}$$

