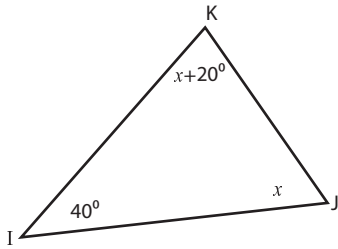


Triangle - Interior Angle

Example:



Sum of the interior angles = 180°

Sum of the interior angles = $40^\circ + x + 20^\circ + x$

$180^\circ = 60^\circ + 2x$

$2x = 180^\circ - 60^\circ = 120^\circ$

$x = \frac{120^\circ}{2} = 60^\circ$

$\angle K = x + 20^\circ$

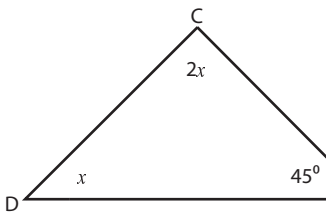
$\angle K = 60^\circ + 20^\circ$

$\angle K = 80^\circ$

$\angle J = 60^\circ$

Find the value of x and unknown interior angles for each triangle.

1)



$x = \underline{\hspace{2cm}}$

$\angle C = \underline{\hspace{2cm}} ; \angle D = \underline{\hspace{2cm}}$

2)

U W

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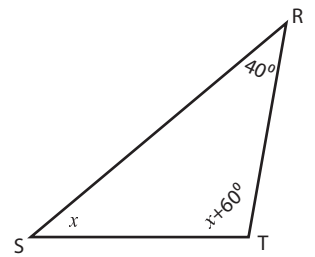
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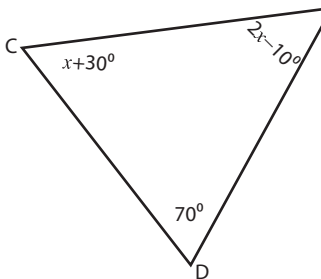
3)



$x = \underline{\hspace{2cm}}$

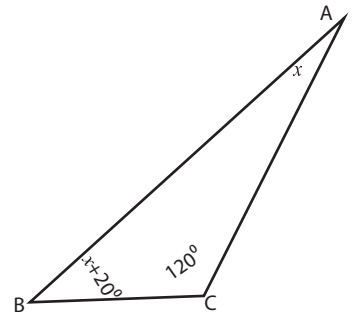
$\angle S = \underline{\hspace{2cm}} ; \angle T = \underline{\hspace{2cm}}$

4)



$x = \underline{\hspace{2cm}}$

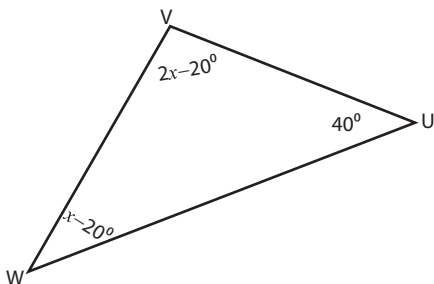
$\angle B = \underline{\hspace{2cm}} ; \angle C = \underline{\hspace{2cm}}$



$x = \underline{\hspace{2cm}}$

$\angle A = \underline{\hspace{2cm}} ; \angle B = \underline{\hspace{2cm}}$

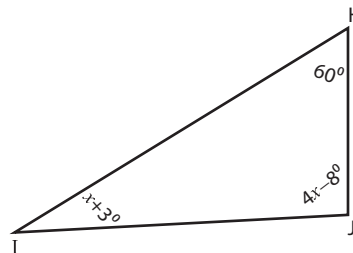
7)



$x = \underline{\hspace{2cm}}$

$\angle V = \underline{\hspace{2cm}} ; \angle W = \underline{\hspace{2cm}}$

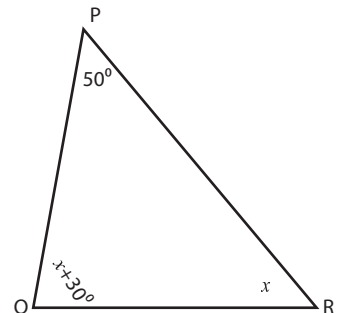
8)



$x = \underline{\hspace{2cm}}$

$\angle I = \underline{\hspace{2cm}} ; \angle J = \underline{\hspace{2cm}}$

9)



$x = \underline{\hspace{2cm}}$

$\angle Q = \underline{\hspace{2cm}} ; \angle R = \underline{\hspace{2cm}}$

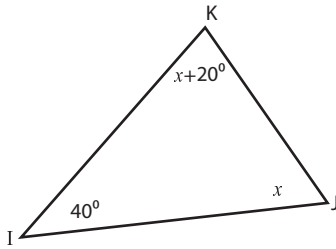
Name : _____

Answer key

Triangle - Interior Angle

MS2

Example:



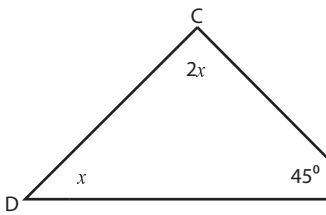
Sum of the interior angles = 180°

$$\begin{aligned} \text{Sum of the interior angles} &= 40^\circ + x + 20^\circ + x \\ 180^\circ &= 60^\circ + 2x \\ 2x &= 180^\circ - 60^\circ = 120^\circ \\ x &= \frac{120^\circ}{2} = 60^\circ \end{aligned}$$

$$\begin{aligned} \angle K &= x + 20^\circ \\ \angle K &= 60^\circ + 20^\circ \\ \angle K &= 80^\circ \\ \angle J &= 60^\circ \end{aligned}$$

Find the value of x and unknown interior angles for each triangle.

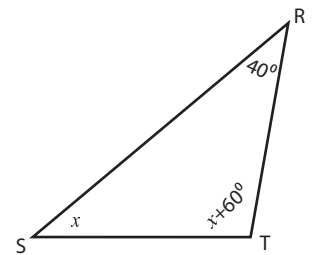
1)



$$x = \underline{45^\circ}$$

$$\angle C = \underline{90^\circ} ; \angle D = \underline{45^\circ}$$

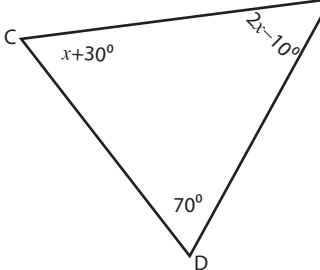
2)



$$x = \underline{40^\circ}$$

$$\angle S = \underline{40^\circ} ; \angle T = \underline{100^\circ}$$

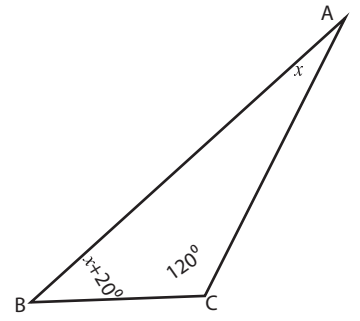
4)



$$x = \underline{30^\circ}$$

$$\angle B = \underline{50^\circ} ; \angle C = \underline{60^\circ}$$

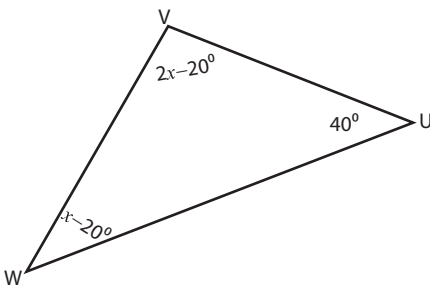
3)



$$x = \underline{20^\circ}$$

$$\angle A = \underline{20^\circ} ; \angle B = \underline{40^\circ}$$

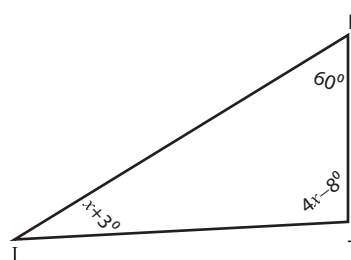
7)



$$x = \underline{60^\circ}$$

$$\angle V = \underline{100^\circ} ; \angle W = \underline{40^\circ}$$

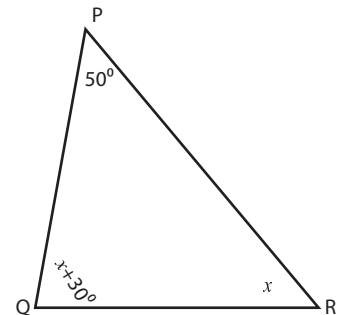
8)



$$x = \underline{25^\circ}$$

$$\angle I = \underline{28^\circ} ; \angle J = \underline{92^\circ}$$

9)



$$x = \underline{50^\circ}$$

$$\angle Q = \underline{80^\circ} ; \angle R = \underline{50^\circ}$$

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