

Name: _____

Grade: _____

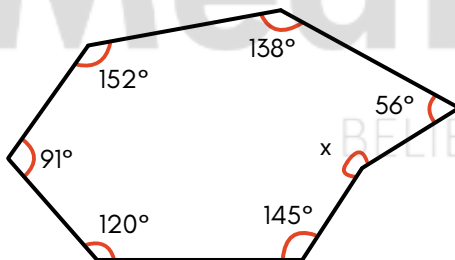
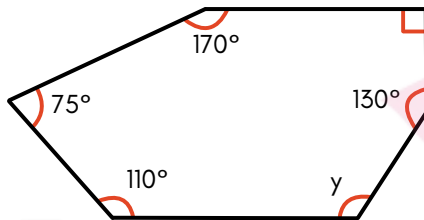
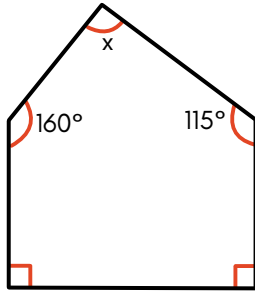
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Worksheet #5

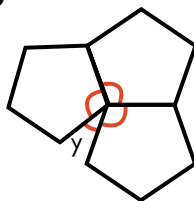
**MISSING ANGLES- IRREGULAR POLYGON**

Learning goal: Students will be able to find the missing values of polygons using angle types and finding the values of unknown.

Find the missing angle



Three identical regular pentagons are joined together.



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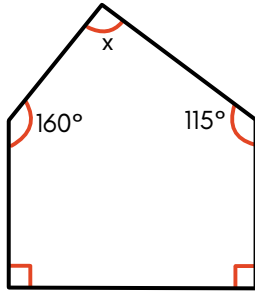
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Worksheet #5

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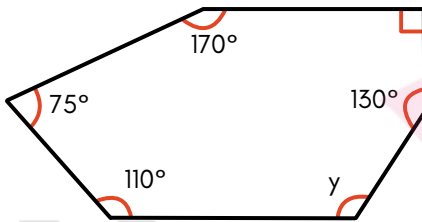
**Solution:**

$$160^\circ + 115^\circ + 90^\circ + 90^\circ + x^\circ = 540^\circ$$

$$455^\circ + x = 540^\circ$$

$$x = 540^\circ - 455^\circ$$

$$x = 85^\circ$$

**Solution:**

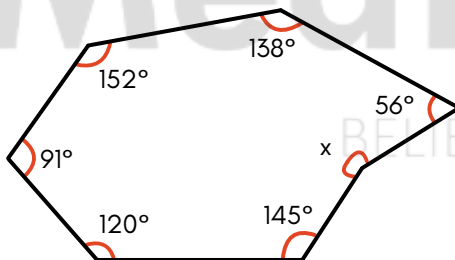
$$170^\circ + 90^\circ + 130^\circ + y^\circ + 110^\circ + 70^\circ$$

$$= 720^\circ$$

$$575^\circ + y = 720^\circ$$

$$y = 720^\circ - 575^\circ$$

$$y = 145^\circ$$

**Solution:**

$$152^\circ + 138^\circ + 56^\circ + x + 145^\circ + 120^\circ + 91^\circ$$

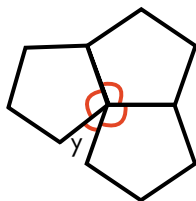
$$= 900^\circ$$

$$702^\circ + x^\circ = 900^\circ$$

$$x = 900^\circ - 702^\circ$$

$$x = 198^\circ$$

Three identical regular pentagons are joined together.

**Solution:**

$$\frac{540}{5} = 108$$

$$108 + 108 + 108 + y = 360$$

$$324 + y = 360$$

$$y = 360 - 324$$

$$y = 36$$