

NAME: \_\_\_\_\_

*P.I. G.G.30: Investigate, justify, and apply theorems about the sum of the measures of the angles of a triangle*

1. In  $\triangle ABC$ ,  $m\angle A = 24$  and  $m\angle C = 49$ . Calculate  $m\angle B$ .

[A] 17

[B] 287

[C] 117

[D] 107

2. In  $\triangle ABC$ ,  $m\angle A = 50$  and  $m\angle C = 10$ . Calculate  $m\angle B$ .

[A] 300

[B] 130

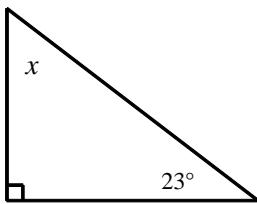
[C] 30

[D] 120

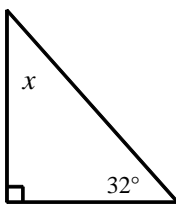
3. The measures of two angles of a triangle are  $58^\circ$  and  $24^\circ$ . Find the measure of the third angle.

4. The measures of two angles of a triangle are  $28^\circ$  and  $42^\circ$ . Find the measure of the third angle.

5. Find the value of  $x$ .

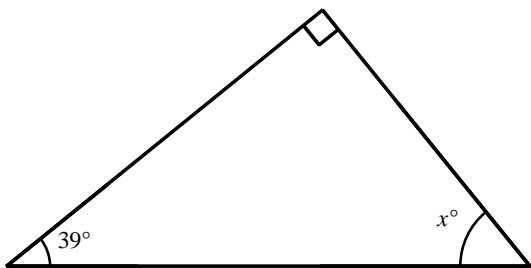


6. Find the value of  $x$ .

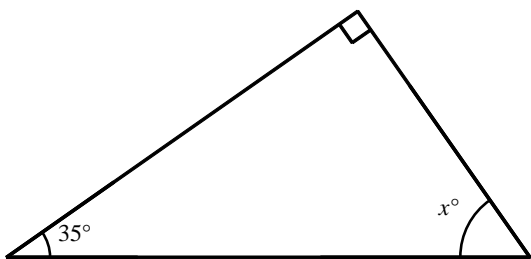


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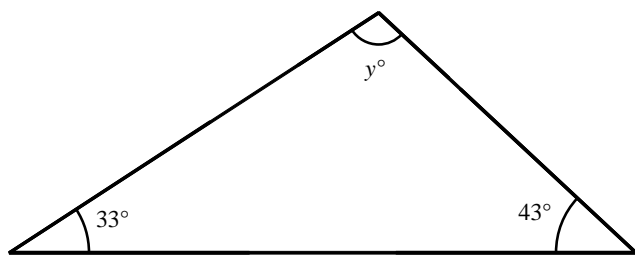
7. Find  $x$ .



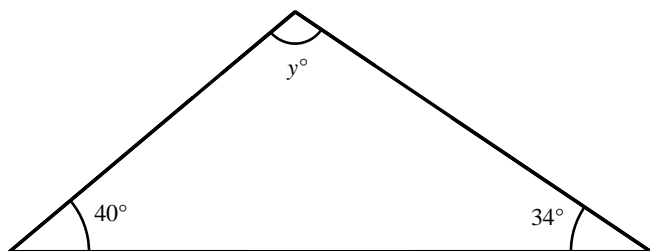
8. Find  $x$ .



9. Find  $y$ .



10. Find  $y$ .



[1] D

[2] D

[3]  $98^\circ$

[4]  $110^\circ$

[5]  $67^\circ$

[6]  $58^\circ$

[7]  $x = 51$

[8]  $x = 55$

[9]  $y = 104$

[10]  $y = 106$