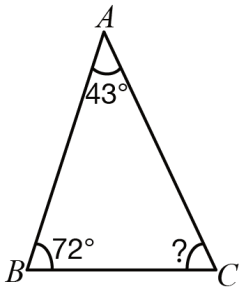
DAY 3: Triangle

Self-Checking

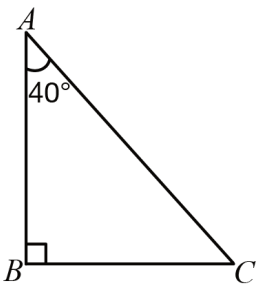
1 Find the angle measures.

(1)



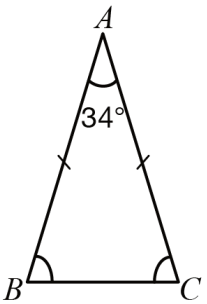
$\angle C =$ _____ °

(2)



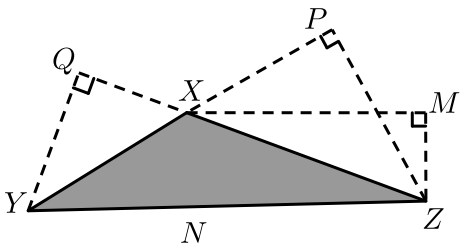
$\angle C =$ _____ °

(3)



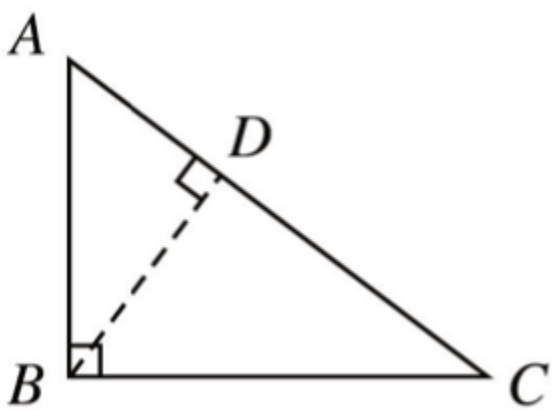
$\angle B =$ _____ °, $\angle C =$ _____ °

2 The figure below shows triangle XYZ. Given that XZ is the base of the triangle XYZ, what is its corresponding height?



A. QY B. PZ C. MZ D. XN

3 In right triangle ABC, $\angle ABC = 90°$, and BD is perpendicular to AC. Given that the length of AB is 30 cm, the length of BC is 40 cm, the length of AC is 50 cm, and the length of BD is 24 cm. Find the area of the triangle in two ways.



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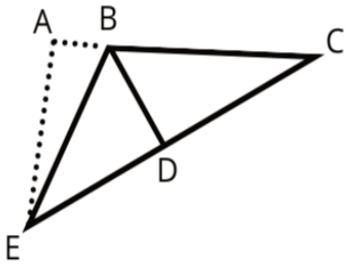
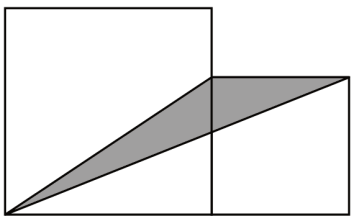
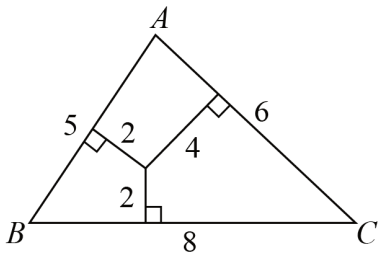
4 In the figure below, BD is perpendicular to EC and AE is perpendicular to AC. Points A, B, and C are all on one line. If BD = 6, EC = 9, AE = 18, BC is _____ .



5 As shown in the figure below, two squares are placed next to each other. Given the side length of the small square is 6, what is the area of the shaded part?



6 As shown in the figure below, there's a point inside the triangle and the distance from this point to the three sides are: 2 mm, 2 mm, and 4 mm. This triangle has three sides with lengths of 5 mm, 6 mm, and 8 mm. The area of the triangle is _____ mm².



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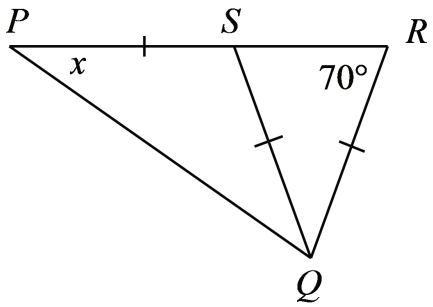
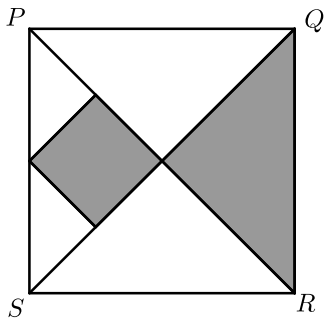
Bonus Tests

7 What is the measure of the angle marked x in this diagram?
(The lengths PS, SQ and RQ are all equal.)



8 Figure $PQRS$ below is a square. It is made up of 1 small square, 2 small triangles and 3 large triangles. PR and QS are straight lines.
What fraction of the square $PQRS$ is shaded? ( )



A. $\frac{1}{2}$ B. $\frac{1}{4}$ C. $\frac{3}{8}$ D. $\frac{5}{8}$