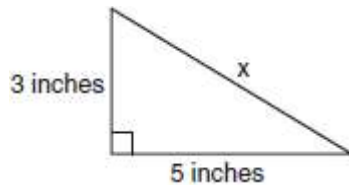


Name _____
Mr. Schlansky

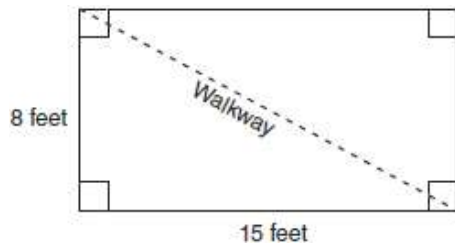
Date _____
Geometry

Right Triangles Review Sheet

1. What is the value of x , in inches, in the right triangle below?

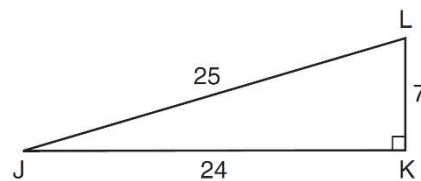


2. Nancy's rectangular garden is represented in the diagram below. If a diagonal walkway crosses her garden, what is its length, in feet?



3. In right triangle JKL in the diagram below, $KL = 7$, $JK = 24$, $JL = 25$, and $\angle K = 90^\circ$. Which statement is *not* true?

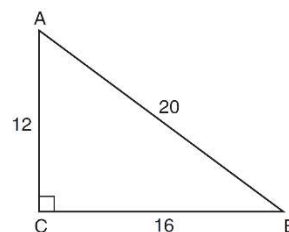
- 1) $\tan L = \frac{24}{7}$
- 2) $\cos L = \frac{24}{25}$
- 3) $\tan J = \frac{7}{24}$
- 4) $\sin J = \frac{7}{25}$



4. In right triangle ABC shown below, $AC = 12$, $BC = 16$, and $AB = 20$.

Which equation is *not* correct?

- 1) $\cos A = \frac{12}{20}$
- 2) $\tan A = \frac{16}{12}$
- 3) $\sin B = \frac{12}{20}$
- 4) $\tan B = \frac{16}{20}$

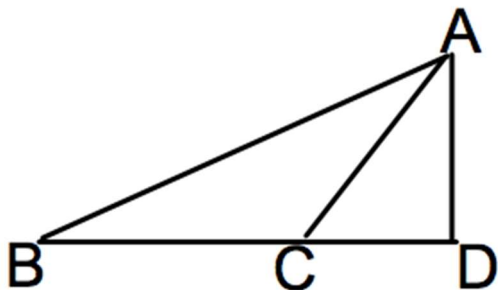


5 A 28-foot ladder is leaning against a house. The bottom of the ladder is 6 feet from the base of the house. Find the measure of the angle formed by the ladder and the ground, to the *nearest degree*.

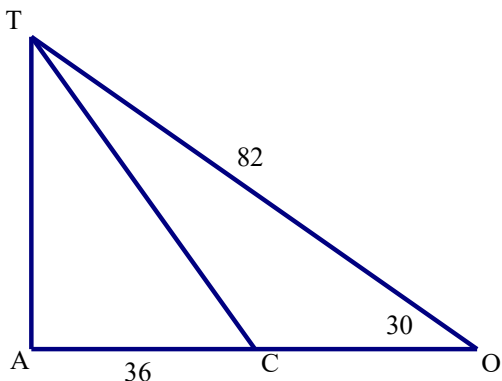
6. A 20-foot support post leans against a wall, making a 70° angle with the ground. To the *nearest tenth of a foot*, how far up the wall will the support post reach?

7. In right triangle ABC shown below, $AC = 29$ inches, $AB = 17$ inches, and $m\angle ABC = 90$. Find the number of degrees in the measure of angle BAC , to the *nearest degree*. Find the length of \overline{BC} to the *nearest inch*.

8. In the diagram below, $m\angle CAD = 35$, $m\angle ABD = 42$, and $m\overline{AD} = 60$. Find to the nearest tenth, $m\overline{BC}$.



9. Find the measure of $\angle TCA$ in the diagram of right triangle TAO below to the nearest tenth of a degree.

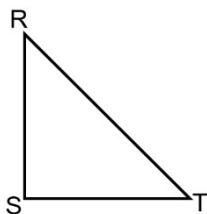


10. If $\sin(x + 15) = \cos 45$, determine the value of x .

11. If $\sin(2x + 7)^\circ = \cos(4x - 7)^\circ$, what is the value of x ?

12. In right triangle RST shown below, which of the following must be true?

- I: $\sin R = \cos S$
- II: $\cos T = \sin R$
- III: $\sin T = \cos R$
- IV: $\tan R = \tan S$



- 1) I and IV
- 2) II and III
- 3) I, II, and III
- 4) III only

13. In right triangle ABC with the right angle at C , $\sin A = 2x + 0.1$ and $\cos B = 4x - 0.7$. Determine and state the value of x . Explain your answer.