Module 13/14 Review
Use triangle *ABC* to answer questions 1-2

Name_____

A

4 in.   5 in.

B   3 in.   C
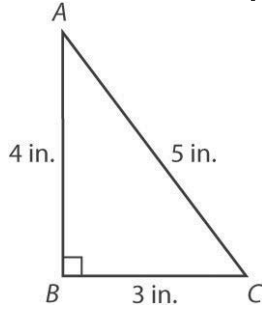
1. Which side is opposite ∠*A*

2. What is tan *C*?

A $\frac{5}{3}$ C $\frac{3}{4}$

C. $\frac{4}{3}$ D $\frac{3}{5}$

Use triangle *LTF* to answer questions 3–7.

F

10 cm   6 cm
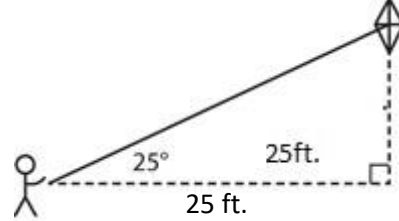
L   8 cm   T

3. What is sin *F*?

4. What is cos *F*?
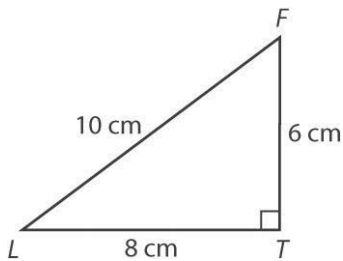
5. What is tan *F*?

6. What is the measure of angle *L*, to the nearest degree?
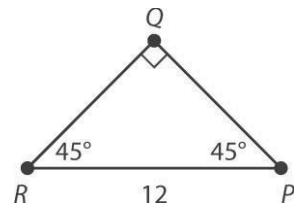
7. How else could you find angle *L*?

8. Raul is standing 25 feet away from the bottom of the kite. Raul is holding the string 3 feet off the ground at the angle to the horizontal as shown.

25°   25ft.

25 ft.

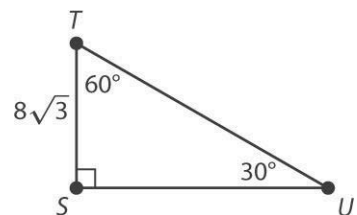How high is the kite off the ground? Round your answer to the nearest tenth. Explain your reasoning.

Δ*PQR* is shown.

Q

45°   45°

R   12   P

9. What are the missing side lengths in Δ*PQR?* Leave your answers in simplest radical form (no decimals).

10. Given that cos 42° ≈ 0.743, what is the sine of the complementary angle?

Δ*TSU* is shown.

T

60°

8√3

30°

S   U

11. What are the missing side lengths in Δ*TSU?* Explain. Keep your answer in simplest radical form.

Use the figures for 12-14.

A right triangle is shown.

16. If $m\angle H = 68°$, find GI.
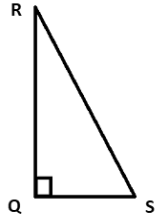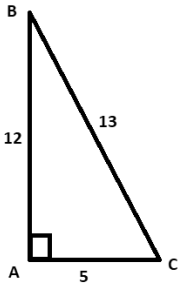
12. Fill in the missing side lengths for each trigonometric ratio.

$$sin\ C = \frac{\quad}{\quad} \qquad sin\ B = \frac{\quad}{\quad} \qquad cos\ C = \frac{\quad}{\quad}$$

$$cos\ B = \frac{\quad}{\quad} \qquad tan\ C = \frac{\quad}{\quad} \qquad tan\ B = \frac{\quad}{\quad}$$

Use the figure for 17–18.

13. Triangle ABC is similar to triangle QRS. Select all angles whose cosine equals $\frac{12}{13}$.

17. $\angle B$ is a right angle. What is AC in simplest radical form?

14. How are the sine, cosine, and tangent related in triangles ABC and QRS? Fill in the blanks with >, <, or =.

18. What is $m\angle A$?

a. $sin\ C$ _____ $sin\ S$

b. $cos\ B$ _____ $sin\ R$

19. What are the horizontal and vertical lengths of the rectangle shown?
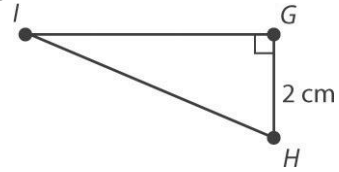
c. $tan\ C$ _____ $tan\ S$

15. Solve the triangle by finding the lengths of all the sides and the measures of all the angles. Show your reasoning.
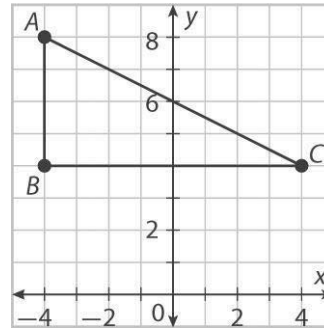

20. What is the area of ΔABC?