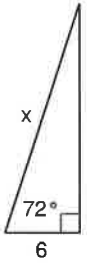


DO ALL PROBLEMS

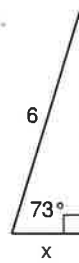
Solving Right Triangles

Find the missing side. Round to the nearest tenth.

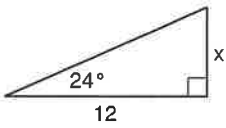
1)



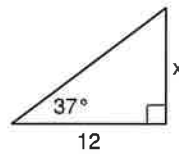
2)



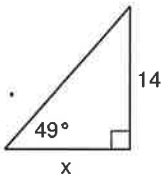
3)



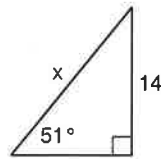
4)



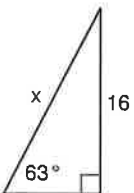
5)



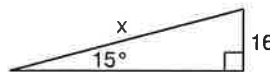
6)



7)

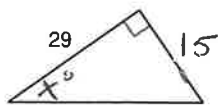


8)

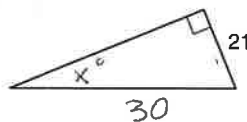


Find the missing angle, Round to the nearest whole number.

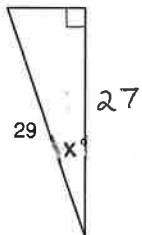
9)



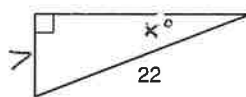
10)



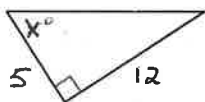
11)



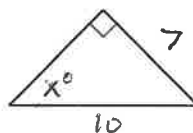
12)



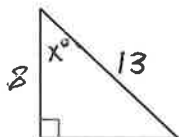
13)



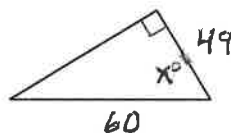
14)



15)



16)



Critical thinking question:

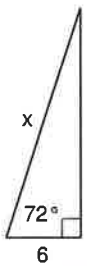
- 17) Write a new problem that is similar to the others on this worksheet. Solve the question you wrote.

Solving Right Triangles

Date _____ Period _____

Find the missing side. Round to the nearest tenth.

1)



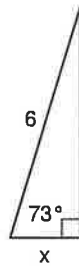
$$\cos 72 = \frac{6}{x}$$

$$0.3090 = \frac{6}{x}$$

$$x = 19.4$$

19.4

2)



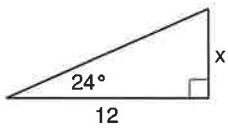
$$\cos 73 = \frac{x}{6}$$

$$0.2924 = \frac{x}{6}$$

$$x = 1.8$$

1.8

3)



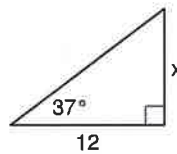
$$\tan 24 = \frac{x}{12}$$

$$0.4452 = \frac{x}{12}$$

$$x = 5.3$$

5.3

4)



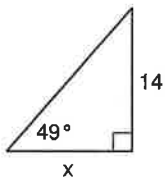
$$\tan 37 = \frac{x}{12}$$

$$0.7536 = \frac{x}{12}$$

$$x = 9.0$$

9.0

5)



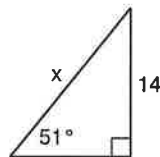
$$\tan 49 = \frac{14}{x}$$

$$1.1504 = \frac{14}{x}$$

$$x = 12.2$$

12.2

6)



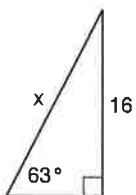
$$\sin 51 = \frac{14}{x}$$

$$0.7771 = \frac{14}{x}$$

$$x = 18.0$$

18.0

7)



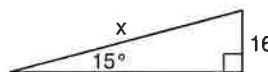
$$\sin 63 = \frac{16}{x}$$

$$0.8910 = \frac{16}{x}$$

$$x = 18.0$$

18.0

8)



$$\sin 15 = \frac{16}{x}$$

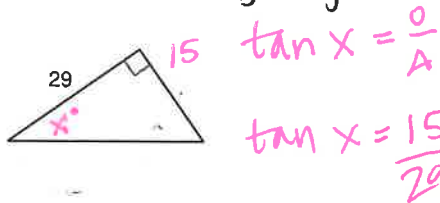
$$0.2588 = \frac{16}{x}$$

$$x = 61.8$$

61.8

Find the missing angle. Round to the nearest whole number.

9)



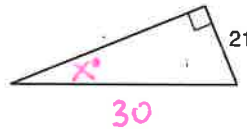
$$\tan X = \frac{O}{A}$$

$$\tan X = \frac{15}{29}$$

$$\tan X = 0.5172$$

$$X \approx 27^\circ$$

10)



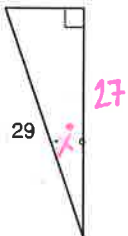
$$\sin X = \frac{O}{H}$$

$$\sin X = \frac{21}{30}$$

$$\sin X = 0.7$$

$$X \approx 44^\circ$$

11)



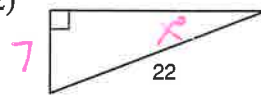
$$\cos X = \frac{A}{H}$$

$$\cos X = \frac{27}{29}$$

$$\cos X = 0.9310$$

$$X \approx 21^\circ$$

12)

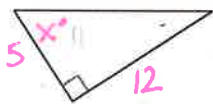


$$\sin X = \frac{O}{H} = \frac{7}{22}$$

$$\sin X = 0.3182$$

$$X \approx 19^\circ$$

13)

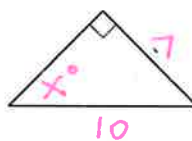


$$\tan X = \frac{O}{A} = \frac{5}{12}$$

$$\tan X = 0.4167$$

$$X \approx 25^\circ$$

14)

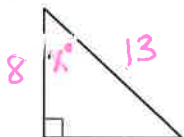


$$\sin X = \frac{O}{H} = \frac{7}{10}$$

$$\sin X = 0.7$$

$$X \approx 44^\circ$$

15)

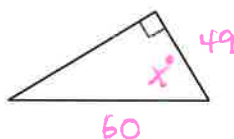


$$\cos X = \frac{A}{H} = \frac{8}{13}$$

$$\cos X = 0.6154$$

$$X \approx 52^\circ$$

16)



$$\cos X = \frac{A}{H} = \frac{49}{60}$$

$$\cos X = 0.8167$$

$$X \approx 35^\circ$$

Critical thinking question:

- 17) Write a new problem that is similar to the others on this worksheet. Solve the question you wrote.

Many answers.