Geometry-Mr. C.-All work on looseleaf. Trig. Tbl, +- Calc. Ok Name_____

Week 4 Practice for Q2 Exam 1

Date_____ Period____

State if the three side lengths form an acute, obtuse, or right triangle.

1) 2 km, 12 km, 13 km

2) 10 mi, 12 mi, 13 mi

3) 9 km, 12 km, 17 km

4) 6 yd, 5 yd, 10 yd

5) 12 ft, $\sqrt{31}$ ft, $\sqrt{170}$ ft

6) $6\sqrt{5}$ mi, 4 mi, 14 mi

7) 2 km, $\sqrt{133}$ km, 13 km

8) 7 in, $2\sqrt{30}$ in, 13 in

9) 9 m, 6 m, $9\sqrt{2}$ m

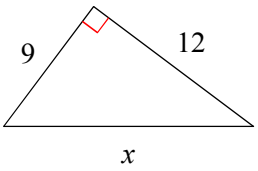
10) 6 in, $5\sqrt{3}$ in, 10 in

11) 7 cm, $\sqrt{70}$ cm, 11 cm

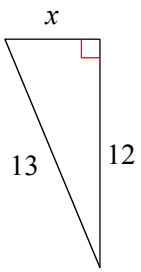
12) 13 cm, 11 cm, $\sqrt{290}$ cm

Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.

13)



14)



Find the missing side of each right triangle. Side *c* is the hypotenuse. Sides *a* and *b* are the legs. Round your answers to the nearest tenth if necessary.

15) $b = 8,\ c = 10$

16) $b = 12,\ c = 13$

17) $b = 4,\ c = 5$

18) $a = 9,\ c = 15$

Find the missing side of each right triangle. Side *c* is the hypotenuse. Sides *a* and *b* are the legs. Leave your answers in simplest radical form.

19) $a = 5,\ b = 11$

20) $a = \sqrt{37},\ b = 6$

21) $a = 8,\ b = 9$

22) $a = 10,\ b = 13$

23) $b = 9,\ c = 12$

24) $a = 5\sqrt{2},\ c = 13$

25) $b = 3,\ c = 4$

26) $b = 2,\ c = 4$

27) $a = 10,\ b = 7$

28) $a = \sqrt{11},\ c = 4$

29) $a = 7,\ c = 16$

30) $a = 9,\ c = \sqrt{226}$

31) $a = 14,\ c = 16$

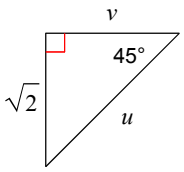
32) $a = 10,\ b = 9$

33) $a = 10,\ b = 11$

34) $a = \sqrt{26},\ b = 4$

Find the missing side lengths. Leave your answers as radicals in simplest form.

35)



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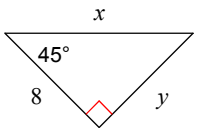

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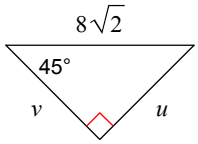

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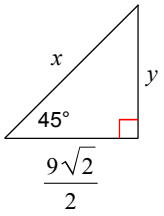

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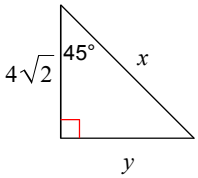

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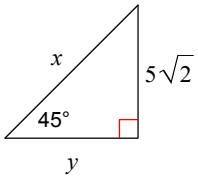

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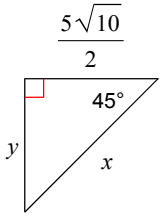

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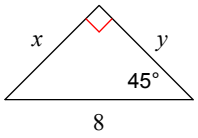

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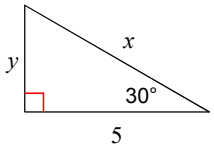

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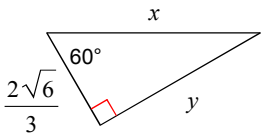

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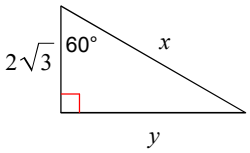

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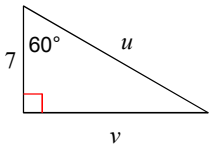

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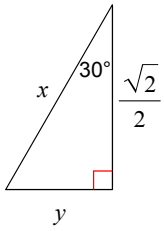

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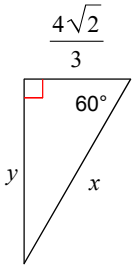

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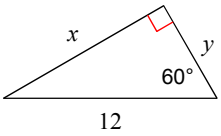

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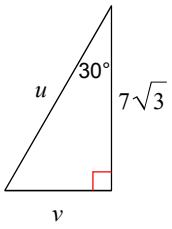
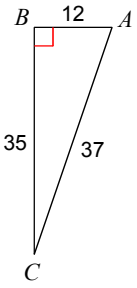
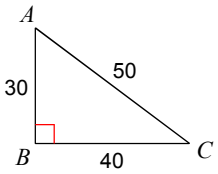


Find the value of each trigonometric ratio.

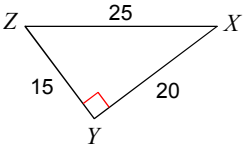
51) sin C



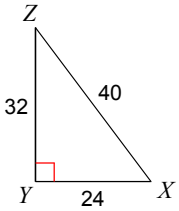
52) sin C



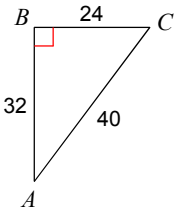
53) cos X



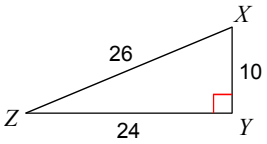
54) sin X



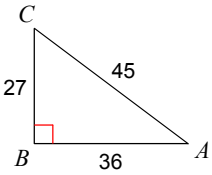
55) cos A



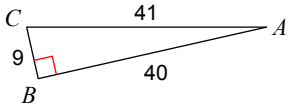
56) cos X



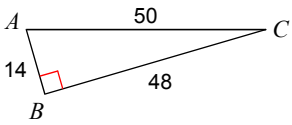
57) sin A



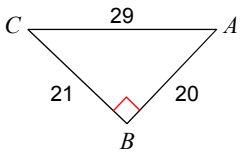
58) sin C



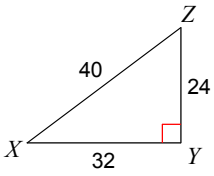
59) sin C



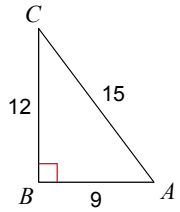
60) tan C



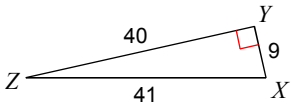
61) tan Z



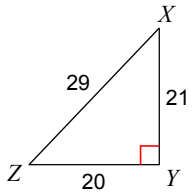
62) tan A



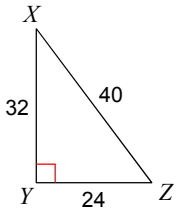
63) cos X



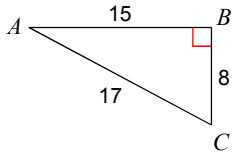
64) sin X



65) cos Z



66) tan C



Find the value of each trigonometric ratio to the nearest ten-thousandth.

67) cos 82°

68) tan 3°

69) tan 55°

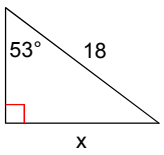
70) tan 16°

71) sin 27°

72) tan 34°

Find the missing side. Round to the nearest tenth.

73)



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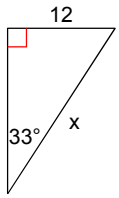

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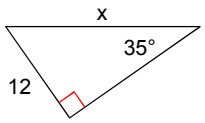

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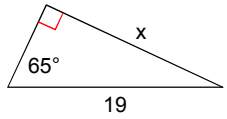

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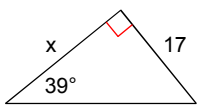

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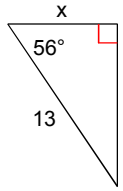

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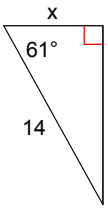

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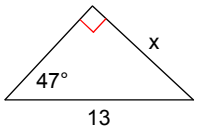

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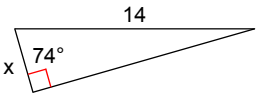

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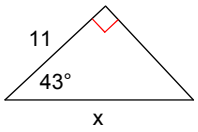

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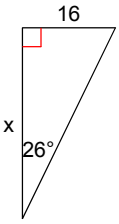

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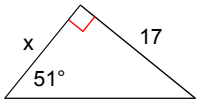

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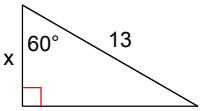

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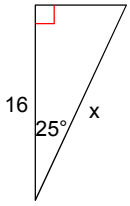

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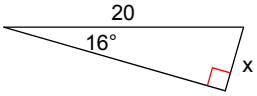

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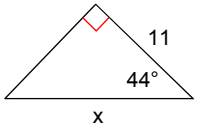

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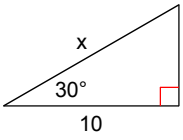

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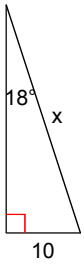

Find each angle measure to the nearest degree.

91) tan A = 2.0503

92) tan W = 0.2309

93) sin W = 0.5150

94) sin W = 0.3420

95) tan A = 0.6745

96) tan W = 1.2349

Answers to Week 4 Practice for Q2 Exam 1 (ID: 1)

1) Obtuse
2) Acute
3) Obtuse
4) Obtuse
5) Acute
6) Right
7) Obtuse
8) Right
9) Obtuse
10) Acute
11) Obtuse
12) Right
13) 15
14) 5
15) 6
16) 5
17) 3
18) 12
19) $\sqrt{146}$
20) $\sqrt{73}$
21) $\sqrt{145}$
22) $\sqrt{269}$
23) $3\sqrt{7}$
24) $\sqrt{119}$
25) $\sqrt{7}$
26) $2\sqrt{3}$
27) $\sqrt{149}$
28) $\sqrt{5}$
29) $3\sqrt{23}$
30) $\sqrt{145}$
31) $2\sqrt{15}$
32) $\sqrt{181}$
33) $\sqrt{221}$
34) $\sqrt{42}$
35) $u = 2,\ v = \sqrt{2}$
36) $x = 8\sqrt{2},\ y = 8$
37) $u = 8,\ v = 8$
38) $x = 9,\ y = \frac{9\sqrt{2}}{2}$
39) $x = 8,\ y = 4\sqrt{2}$
40) $x = 10,\ y = 5\sqrt{2}$
41) $x = 5\sqrt{5},\ y = \frac{5\sqrt{10}}{2}$
42) $x = 4\sqrt{2},\ y = 4\sqrt{2}$
43) $x = \frac{10\sqrt{3}}{3},\ y = \frac{5\sqrt{3}}{3}$
44) $x = \frac{4\sqrt{6}}{3},\ y = 2\sqrt{2}$
45) $x = 4\sqrt{3},\ y = 6$
46) $u = 14,\ v = 7\sqrt{3}$
47) $x = \frac{\sqrt{6}}{3},\ y = \frac{\sqrt{6}}{6}$
48) $x = \frac{8\sqrt{2}}{3},\ y = \frac{4\sqrt{6}}{3}$
49) $x = 6\sqrt{3},\ y = 6$
50) $u = 14,\ v = 7$
51) $\frac{12}{37}$
52) $\frac{3}{5}$
53) $\frac{4}{5}$
54) $\frac{4}{5}$
55) $\frac{4}{5}$
56) $\frac{5}{13}$
57) $\frac{3}{5}$
58) $\frac{40}{41}$
59) $\frac{7}{25}$
60) $\frac{20}{21}$
61) $\frac{4}{3}$
62) $\frac{4}{3}$
63) $\frac{9}{41}$
64) $\frac{20}{29}$
65) $\frac{3}{5}$
66) $\frac{15}{8}$
67) 0.1392
68) 0.0524
69) 1.4281
70) 0.2867
71) 0.4540
72) 0.6745
73) 14.4
74) 22.0
75) 20.9
76) 17.2
77) 21.0
78) 7.3
79) 6.8
80) 9.5
81) 3.9
82) 15.0
83) 32.8
84) 13.8
85) 6.5
86) 17.7
87) 5.5
88) 15.3
89) 11.5
90) 32.4
91) 64°
92) 13°
93) 31°
94) 20°
95) 34°
96) 51°