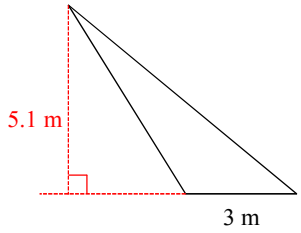
Geometry 1 - Mr. C. - Trig. Table, Add/Sub Calculator OK Name_____

Practice for Sem1Exam

Date_____ Period____

Find the area.

1)



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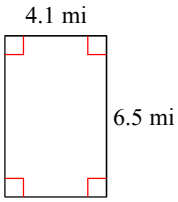


Find the area of each circle. Exact answer.

3) radius = 9 cm

4) radius = 2 in

Find the circumference of each circle. Exact answer.

5) radius = 8 km

6) radius = 5 mi

Find the midpoint of the line segment with the given endpoints.

7) $(-9, 0)$, $(-2, 3)$

8) $(9, 3)$, $(-8, -8)$

9) $(6, 7)$, $(-1, 3)$

10) $(2, -2)$, $(-7, 6)$

Find the distance between each pair of points.

11) $(-1, 3)$, $(-2, -5)$

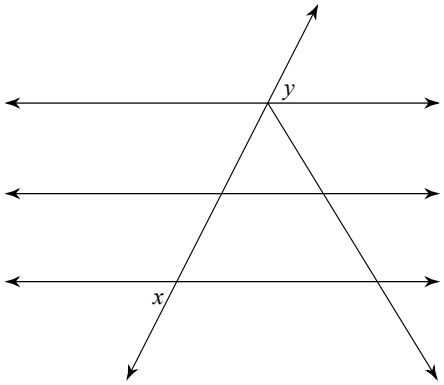
12) $(2, -1)$, $(3, -6)$

13) $(-8, -6)$, $(-5, 4)$

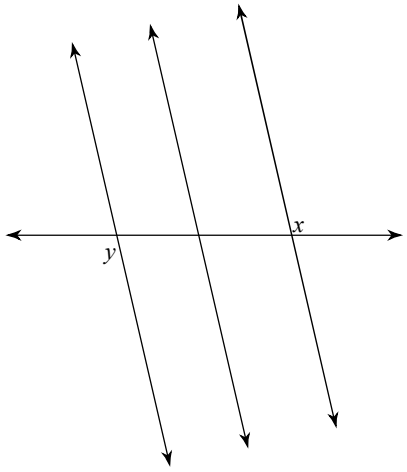
14) $(-4, -1)$, $(1, -5)$

Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, or vertical.

15)

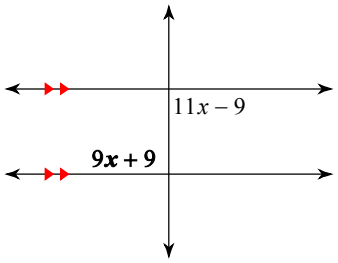


16)



Find the measure of the angle indicated in bold.

17)



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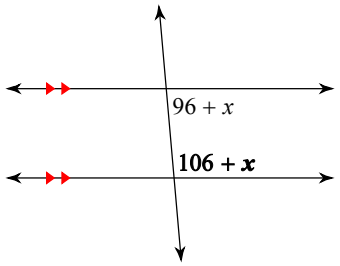
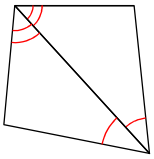
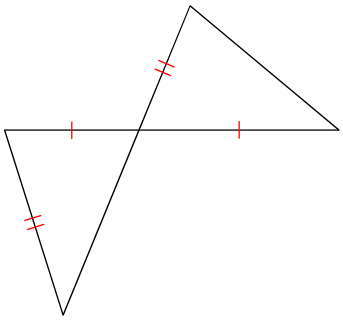


State if the two triangles are congruent. If they are, state how you know.

19)



20)



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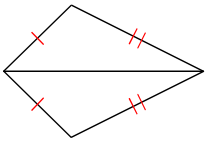

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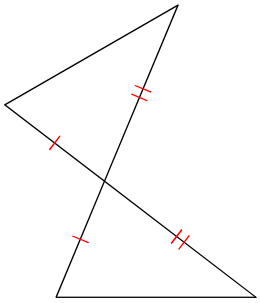

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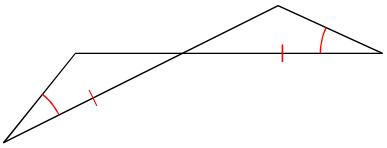

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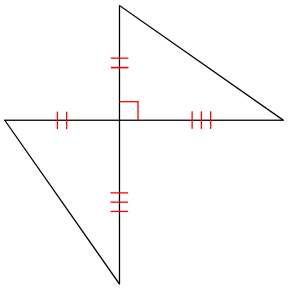
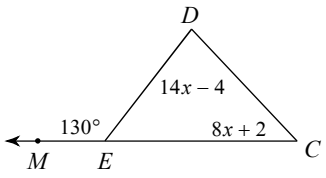
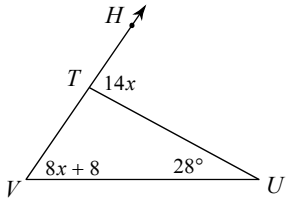


Solve for x.

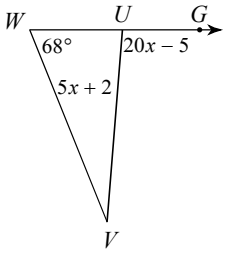
25) Find $m\angle C$.



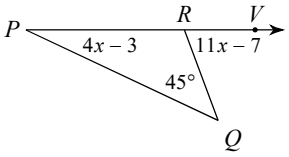
26) Find $m\angle HTU$.



27) Find $m\angle V$.



28) Find $m\angle P$.



State if the three numbers can be the measures of the sides of a triangle.

29) 16, 12, 7

30) 8, 21, 10

31) 1, 6, 7

32) 8, 10, 12

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

33) 9 in, 8 in, 10 in

34) 6 in, 9 in, 10 in

35) 2 mi, 12 mi, 13 mi

36) 3 cm, 4 cm, 5 cm

37) 14 km, 12 km, 15 km

38) 6 cm, 8 cm, 10 cm

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.

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

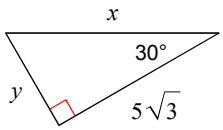
40) $a = 5,\ b = \sqrt{17}$

41) $b = 6,\ c = 13$

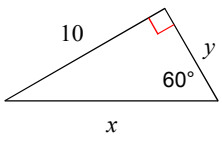
42) $a = 4,\ b = 6$

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

43)



44)



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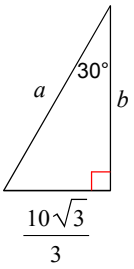
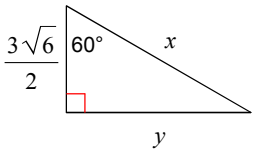
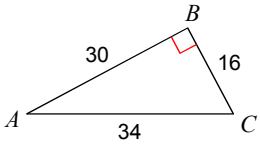


46)

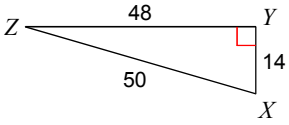


Find the value of each trigonometric ratio.

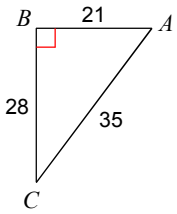
47) cos *A*



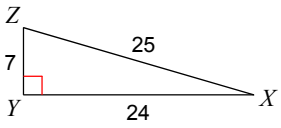
48) tan *X*



49) cos *A*

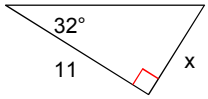


50) tan *Z*

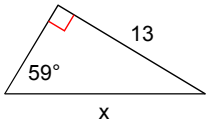


Find the missing side. Round to the nearest tenth.

51)



52)



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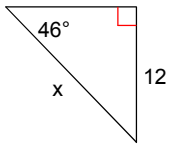
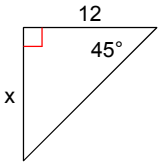


54)



Find each angle measure to the nearest degree.

55) cos Z = 0.9781

56) cos Y = 0.9272

57) sin Y = 1.0000

58) sin Z = 0.0175

Answers to Practice for Sem1Exam (ID: 1)

1) 7.65 m²
2) 26.65 mi²
3) 81π cm²
4) 4π in²
5) 16π km
6) 10π mi
7) $\left(-5\frac{1}{2}, 1\frac{1}{2}\right)$
8) $\left(\frac{1}{2}, -2\frac{1}{2}\right)$
9) $\left(2\frac{1}{2}, 5\right)$
10) $\left(-2\frac{1}{2}, 2\right)$
11) $\sqrt{65}$
12) $\sqrt{26}$
13) $\sqrt{109}$
14) $\sqrt{41}$
15) alternate exterior
16) alternate exterior
17) 90°
18) 95°
19) ASA
20) Not congruent
21) SSS
22) SAS
23) ASA
24) SAS
25) 50°
26) 84°
27) 27°
28) 25°
29) Yes
30) No
31) No
32) Yes
33) Acute
34) Acute
35) Obtuse
36) Right
37) Acute
38) Right
39) $\sqrt{145}$
40) $\sqrt{42}$
41) $\sqrt{133}$
42) $2\sqrt{13}$
43) $x = 10,\ y = 5$
44) $x = \frac{20\sqrt{3}}{3},\ y = \frac{10\sqrt{3}}{3}$
45) $a = \frac{20\sqrt{3}}{3},\ b = 10$
46) $x = 3\sqrt{6},\ y = \frac{9\sqrt{2}}{2}$
47) $\frac{15}{17}$
48) $\frac{24}{7}$
49) $\frac{3}{5}$
50) $\frac{24}{7}$
51) 6.9
52) 15.2
53) 16.7
54) 12.0
55) 12°
56) 22°
57) 90°
58) 1°

Geometry 1 - Mr. C. - Trig. Table & Add/Sub Calculator OKName_____

Practice for Sem1Exam

Date_____ Period____

Write the slope-intercept form of the equation of the line through the given points.

59) through: $(-5, -3)$ and $(-5, 5)$

60) through: $(0, -5)$ and $(4, -2)$

61) through: $(0, -5)$ and $(2, 2)$

62) through: $(-4, 1)$ and $(0, 4)$

63) through: $(-5, 2)$ and $(-1, 3)$

64) through: $(-3, -1)$ and $(-5, 3)$

Solve each equation by factoring.

65) $b^2 = -30 + 11b$

66) $r^2 + 7 = 8r$

67) $x^2 - 4x = 32$

68) $a^2 = -24 - 11a$

69) $n^2 = -8 + 9n$

70) $v^2 + 7v = 8$

Find the reference angle for the given angle.

71) 310°

72) 210°

73) 140°

74) −115°

75) −250°

76) −330°

77) −315°

78) 340°

Find the EXACT value of each trig. ratio.

79) cos 0°

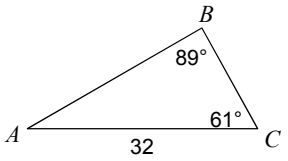
80) cos −150°

81) tan 0°

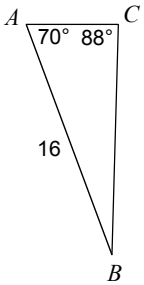
82) tan 180°

Find each measurement indicated.

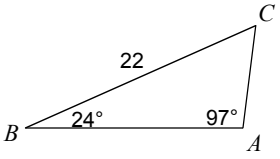
83) Find AB



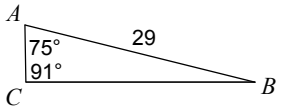
84) Find BC



85) Find AC



86) Find BC



Answers to Practice for Sem1Exam (ID: 1)

59) $x = -5$

60) $y = \frac{3}{4}x - 5$

61) $y = \frac{7}{2}x - 5$

62) $y = \frac{3}{4}x + 4$

63) $y = \frac{1}{4}x + \frac{13}{4}$

64) $y = -2x - 7$

65) $\{5, 6\}$

66) $\{1, 7\}$

67) $\{-4, 8\}$

68) $\{-3, -8\}$

69) $\{1, 8\}$

70) $\{-8, 1\}$

71) 50°

72) 30°

73) 40°

74) 65°

75) 70°

76) 30°

77) 45°

78) 20°

79) 1

80) $-\frac{\sqrt{3}}{2}$

81) 0

82) 0

83) 28

84) 15

85) 9

86) 28