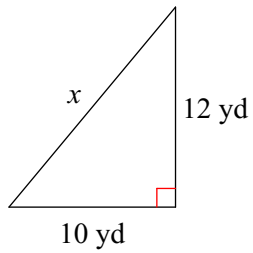


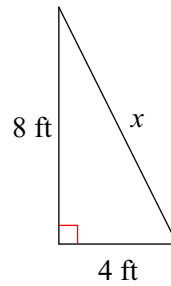
Review Topics #1 for Geometry Final Exam

Find the missing side of each triangle. Leave your answers in simplest radical form.

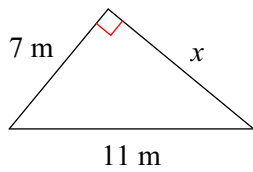
1)



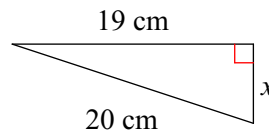
2)



3)

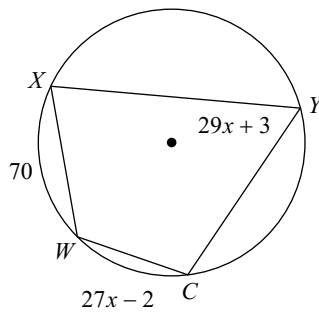


4)

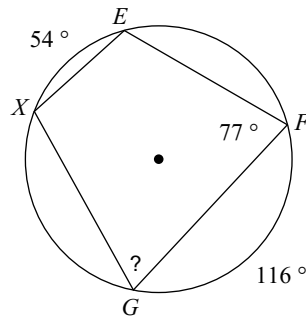


Find the measure of the arc or angle indicated.

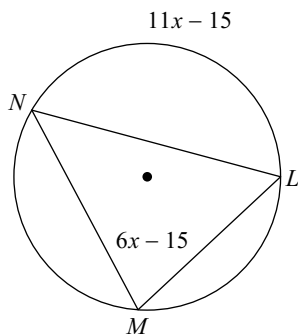
5) Find $m\widehat{CW}$



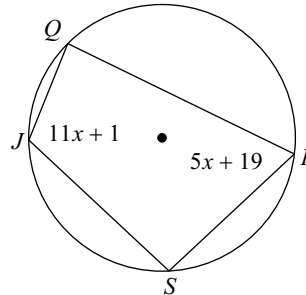
6)



7) Find $m\angle LMN$

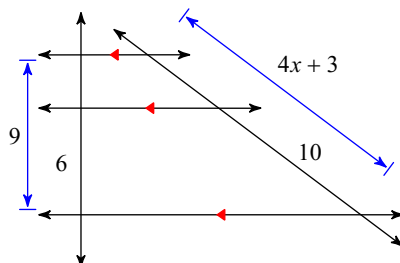


8) Find $m\widehat{QRS}$

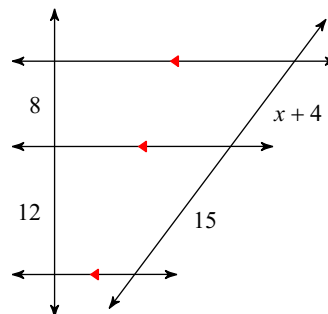


Solve for x .

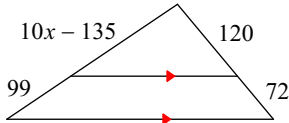
9)



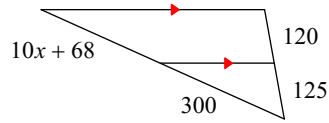
10)



11)

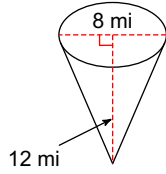


12)

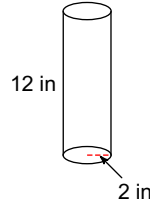


Find the volume of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π .

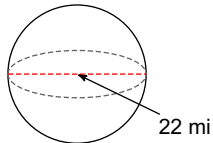
13)



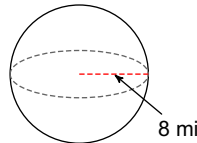
14)



15)

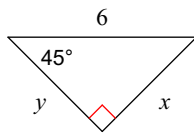


16)

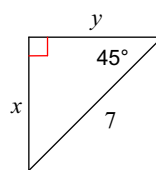


Find the missing side lengths. Leave your answers as radicals in simplest form.

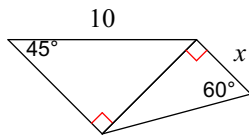
17)



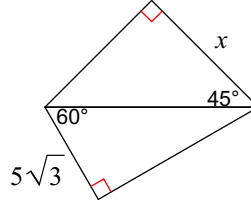
18)



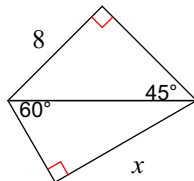
19)



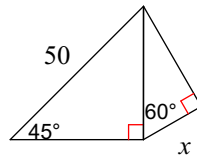
20)



21)

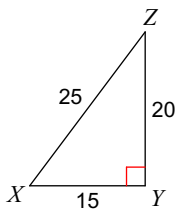


22)

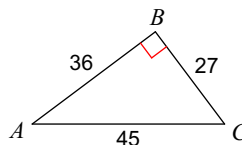


Find the value of each trigonometric ratio.

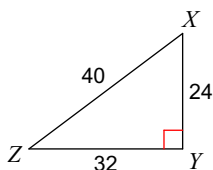
23) $\sin Z$



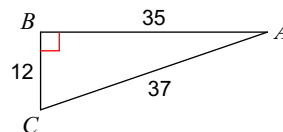
24) $\cos C$



25) $\sin X$

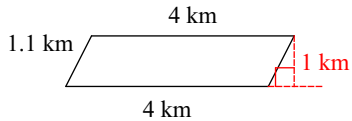


26) $\cos C$

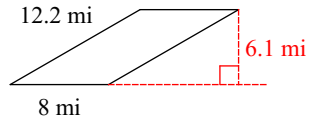


Find the area of each.

27)



28)

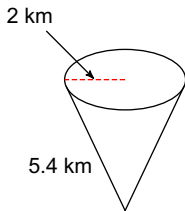


29) For a circle with a circumference = 8π km

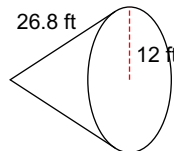
30) For a circle with a circumference = 14π mi

Find the surface area of each figure. Round your answers to the nearest tenth, if necessary. Leave your answers in terms of π for answers that contain π .

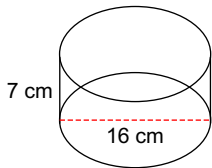
31)



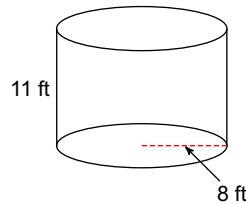
32)



33)

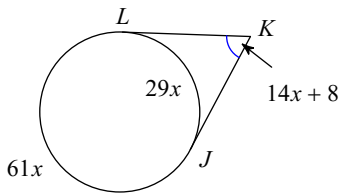


34)

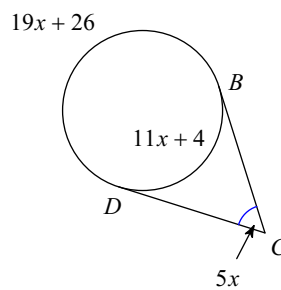


Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

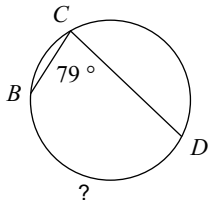
35) Find $m\angle JKL$



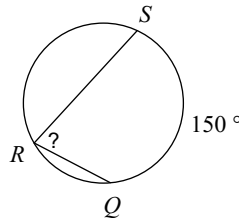
36) Find $m\widehat{DB}$



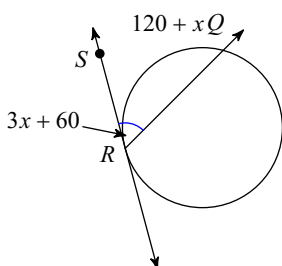
37)



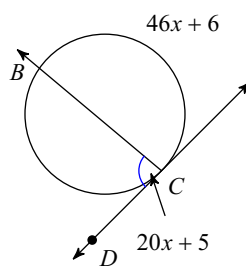
38)



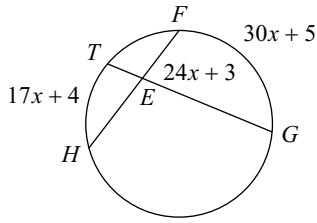
39) Find $m\widehat{QR}$



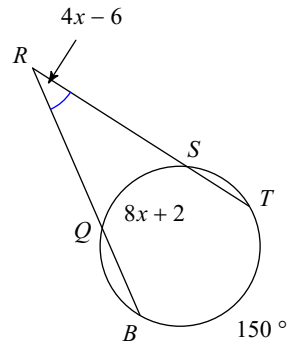
40) Find $m\widehat{BC}$



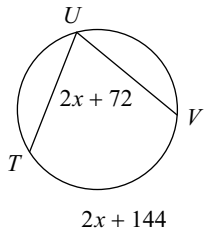
41) Find $m\angle FEG$



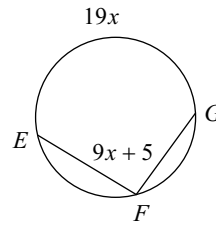
42) Find $m\widehat{SQ}$



43) Find $m\widehat{TV}$

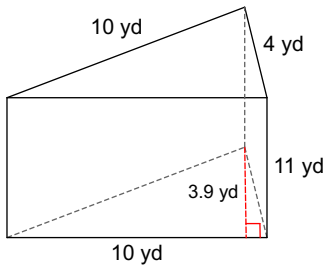


44) Find $m\angle GFE$

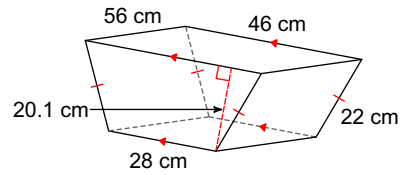


Find the volume of each figure. Round your answers to the nearest tenth, if necessary.

45)



46)



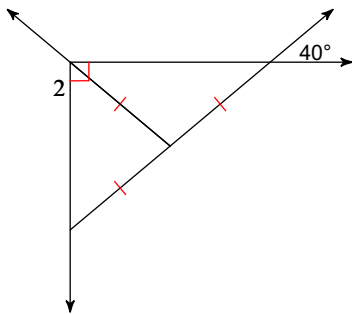
Solve each proportion.

47) $-\frac{8}{n+5} = \frac{6}{n-8}$

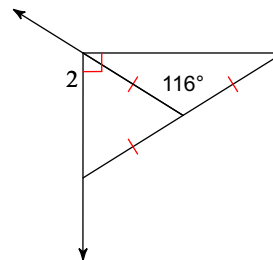
48) $-\frac{22}{25} = \frac{p-7}{p}$

Find the value of x.

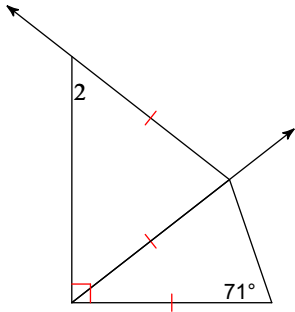
49) $m\angle 2 = 11x + 9$



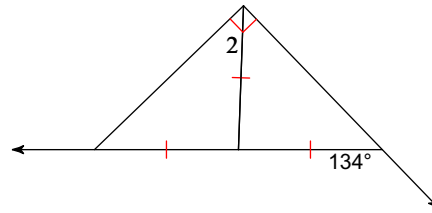
50) $m\angle 2 = 17x + 3$



51) $m\angle 2 = x + 64$

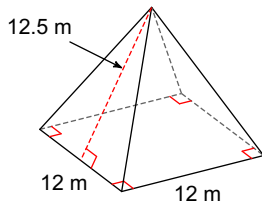


52) $m\angle 2 = 3x + 11$

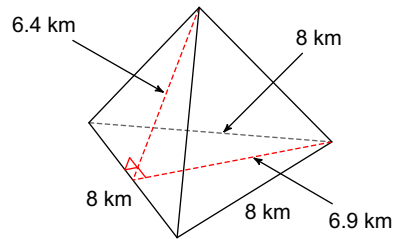


Find the surface area of each figure. Round your answers to the nearest tenth, if necessary.

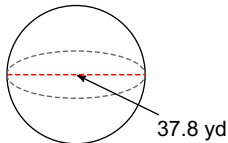
53)



54)

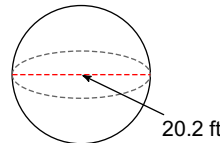


55)



37.8 yd

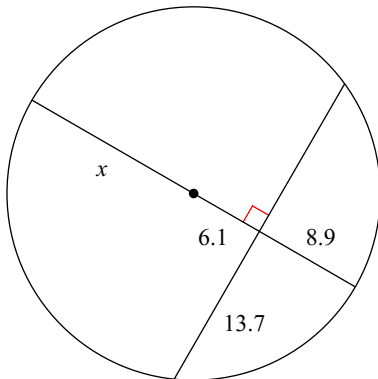
56)



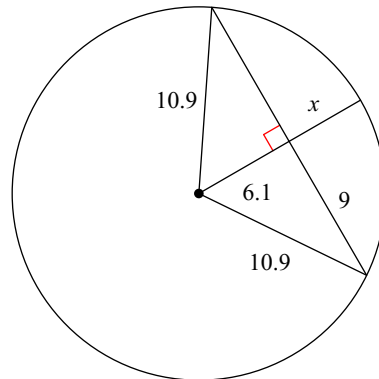
20.2 ft

Find the length of the segment indicated. Round your answer to the nearest tenth if necessary.

57)

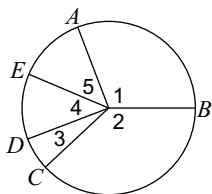


58)

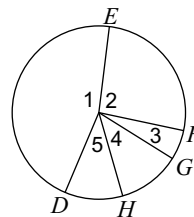


If an angle is given, name the arc it makes. If an arc is given, name its central angle.

59) $\angle 4$



60) $\angle 1$



Round your answer to the nearest tenth or degree.

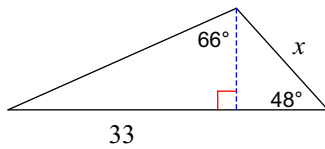
61) John has a skateboard ramp with a ramp length of 5 feet long and an angle of elevation of 52 degrees. Find the height of the ramp.

Round your answer to the nearest tenth or degree.

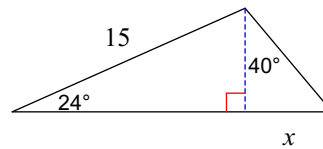
62) An airplane is 255 meters off the ground and has an angle of elevation of 32 degrees to a red flashing light on the ground of the airport runway. Find the distance from the airplane to the light.

Find the length of the side labeled x . Round intermediate values to the nearest tenth. Use the rounded values to calculate the next value. Round your final answer to the nearest tenth.

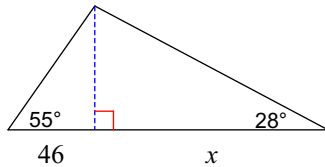
63)



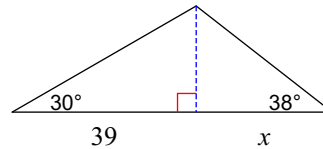
64)



65)



66)



Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.

67) octagon
apothem = 9.2
side = 7.7

68) 7-gon
apothem = 16.6
side = 16

69) hexagon
side = 8

70) triangle
side = $15\sqrt{3}$

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

71) $\sin 35^\circ$

72) $\cos 55^\circ$

73) $\sin 73^\circ$

74) $\cos 49^\circ$

75) $\tan 68^\circ$

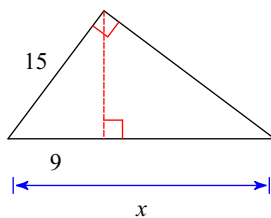
76) $\tan 5^\circ$

77) $\sin 40^\circ$

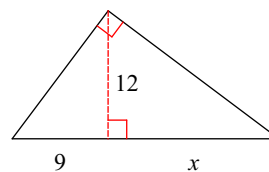
78) $\cos 67^\circ$

Find the missing length indicated. Leave your answer in simplest radical form.

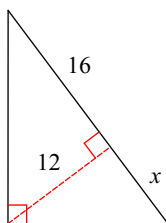
79)



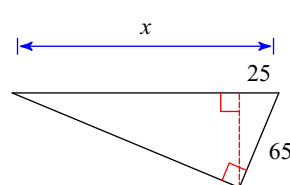
80)



81)



82)



Find the area of each figure. Round your answer to the nearest tenth.

83) A regular pentagon 3 cm on each side.

84) A regular pentagon measuring 7 yd on each side.

85) An equilateral triangle 7 cm on each side.

86) A regular hexagon measuring 5 mi on each side.

87) A regular hexagon measuring 8 mi on each side.

88) A regular octagon 8 cm on each side.

89) A regular pentagon 6 in on each side.

90) A regular octagon measuring 6 in on each side.

Answers to Review Topics #1 for Geometry Final Exam

- | | | | |
|--|--|----------------------------------|-----------------------------------|
| 1) $2\sqrt{61}$ yd | 2) $4\sqrt{5}$ ft | 3) $6\sqrt{2}$ m | 4) $\sqrt{39}$ cm |
| 5) 52° | 6) 72° | 7) 75° | 8) 222° |
| 9) 3 | 10) 6 | 11) 30 | 12) 22 |
| 13) 64π mi ³ | 14) 48π in ³ | 15) 1774.67π mi ³ | 16) 682.67π mi ³ |
| 17) $x = 3\sqrt{2}, y = 3\sqrt{2}$ | 18) $x = \frac{7\sqrt{2}}{2}, y = \frac{7\sqrt{2}}{2}$ | 19) $\frac{5\sqrt{6}}{3}$ | |
| 20) $5\sqrt{6}$ | 21) $4\sqrt{6}$ | 22) $\frac{25\sqrt{2}}{2}$ | 23) $\frac{3}{5}$ |
| 24) $\frac{3}{5}$ | 25) $\frac{4}{5}$ | 26) $\frac{12}{37}$ | 27) 4 km ² |
| 28) 48.8 mi ² | 29) 16π km ² | 30) 49π mi ² | 31) 14.8π km ² |
| 32) 465.6π ft ² | 33) 240π cm ² | 34) 304π ft ² | 35) 64° |
| 36) 125° | 37) 158° | 38) 75° | 39) 120° |
| 40) 170° | 41) 75° | 42) 82° | 43) 144° |
| 44) 95° | 45) 214.5 yd ³ | 46) 41647.2 cm ³ | 47) $\left\{\frac{17}{7}\right\}$ |
| 48) $\left\{\frac{175}{47}\right\}$ | 49) 11 | 50) 7 | 51) -12 |
| 52) 11 | 53) 444 m ² | 54) 104.4 km ² | 55) 4488.8 yd ² |
| 56) 1281.9 ft ² | 57) 15 | 58) 4.8 | 59) \overline{DE} |
| 60) \overline{DE} | 61) The height of the ramp is _____ feet. | | |
| 62) The distance from the airplane to the light is _____ meters. | | | |
| 63) 19.8 | 64) 5.1 | 65) 123.6 | 66) 28.8 |
| 67) 283.4 | 68) 929.6 | 69) 166.3 | 70) 292.3 |
| 71) 0.5736 | 72) 0.5736 | 73) 0.9563 | 74) 0.6561 |
| 75) 2.4751 | 76) 0.0875 | 77) 0.6428 | 78) 0.3907 |
| 79) 25 | 80) 16 | 81) 9 | 82) 169 |
| 83) 15.5 cm ² | 84) 84.3 yd ² | 85) 21.2 cm ² | 86) 65 mi ² |
| 87) 166.3 mi ² | 88) 309 cm ² | 89) 61.9 in ² | 90) 173.8 in ² |