

2nd Semester Final Review

In questions 1-5, $ABCD \sim WXYZ$.

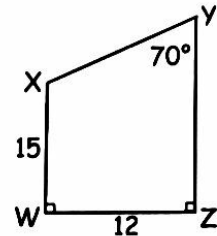
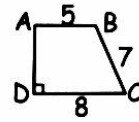
1. What is the scale factor of $ABCD$ to $WXYZ$?

2. Find $m\angle A$

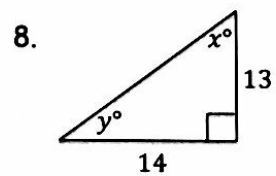
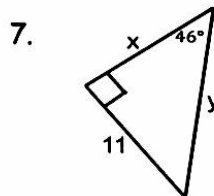
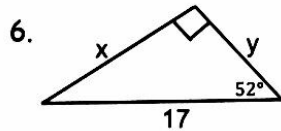
3. Find $m\angle B$

4. Find YZ

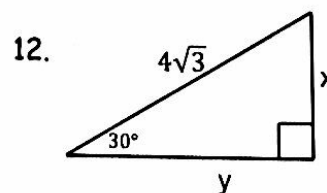
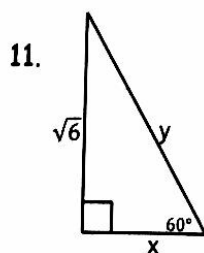
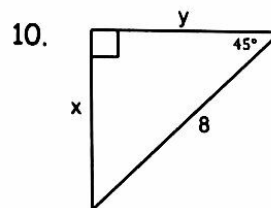
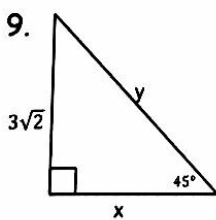
5. Find AD



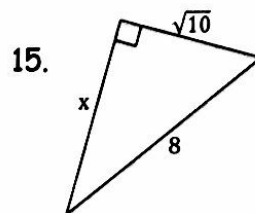
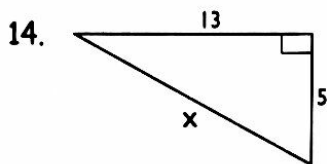
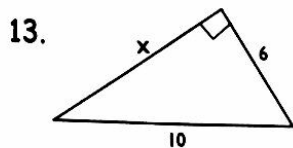
Solve for the values of x and y by using trigonometric functions. Simplify your answers.



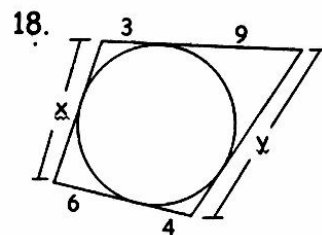
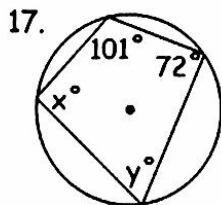
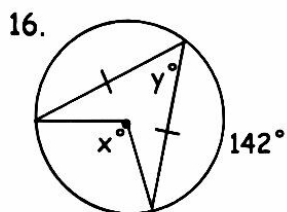
Determine the length of the missing values by using the properties of special right triangles. Show all your work and simplify your answers.



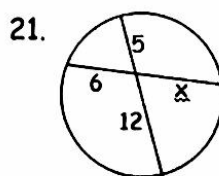
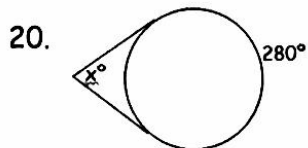
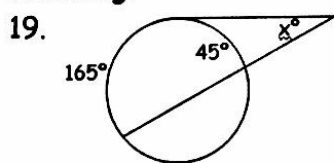
Determine the length of the missing side by using the Pythagorean Theorem. Simplify your answers.



Solve for the value of x and y in each of the following.



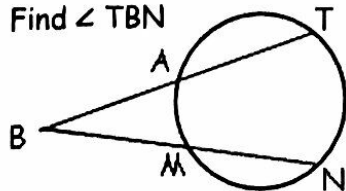
Write an equation to solve for the degree measures or length in each of the following.



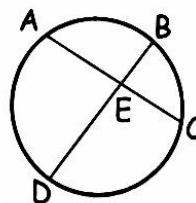
Solve for the missing angle, arc measure or length. Show work by writing an equation.

22. If $m\widehat{AM} = 53^\circ$ and $m\widehat{TN} = 87^\circ$.

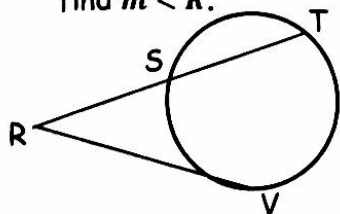
Find $\angle TBN$



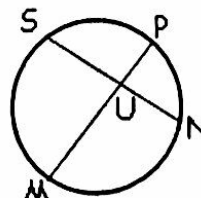
23. If $AE = 8$, $EC = 6$ and $DE = 16$, find BE .



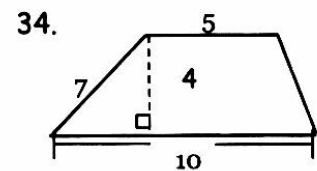
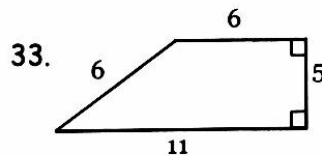
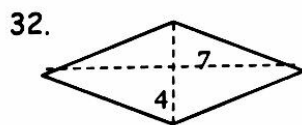
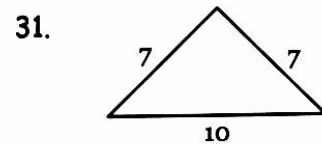
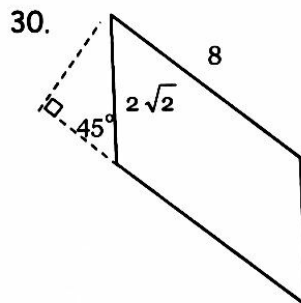
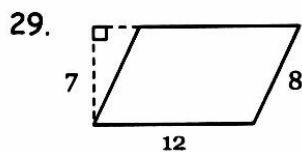
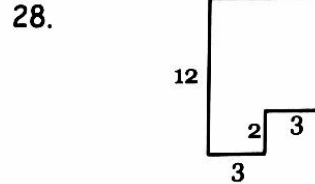
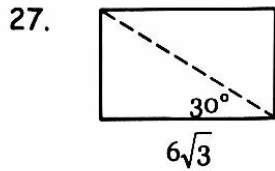
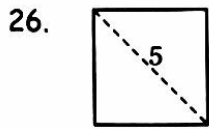
24. If $m\widehat{TV} = 240^\circ$ and $m\widehat{SU} = 60^\circ$, find $m\angle R$.



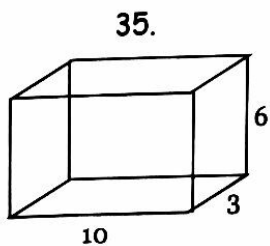
25. If $SU = 9$, $PU = 3$, and $SN = 13$. Find MU .



Find the area of each polygon. State the area formula you are using.



Calculate the listed values then find the values for the Lateral Area, Total Area, and Volume. Show your work and state all equations used.

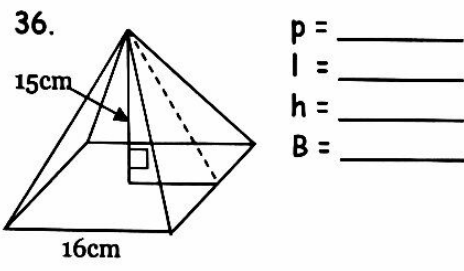


$p =$ _____
 $h =$ _____
 $B =$ _____

L.A. =

T.A. =

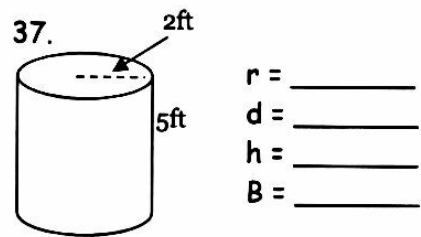
V =



L.A. =

T.A. =

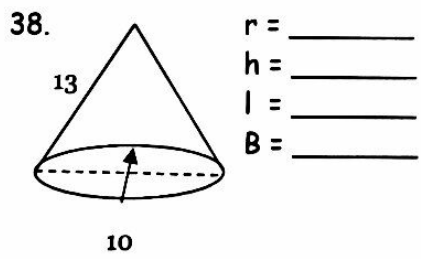
V =



L.A. =

T.A. =

V =

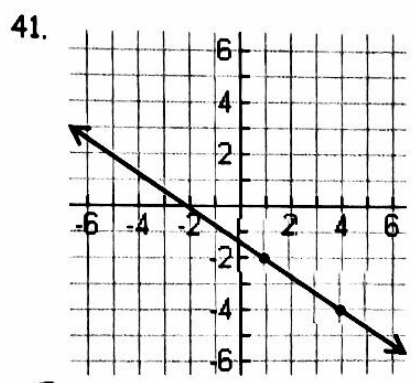
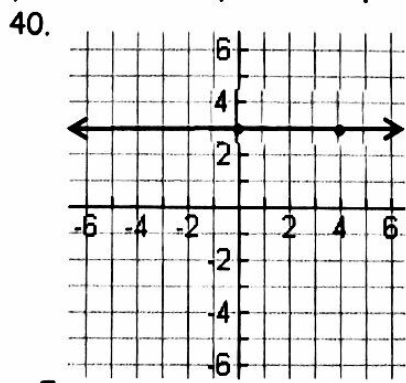
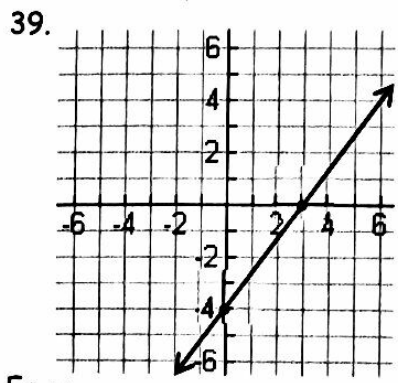


L.A. =

T.A. =

V =

Write the equation of each graphed line in slope-intercept form.



Write the equation of each line in slope-intercept form using the given information.

42. $m = -2; (1, -4)$

43. $(3, -1)$ and $(-6, -4)$

44. $(0, 4)$ and $(2, 3)$

45. $m = -\frac{3}{2}; (2, 0)$

46. Horizontal line through $(6, 8)$

47. Vertical line through $(7, 10)$

48. Parallel to $y = 4x + 2$
through $(2, 3)$

49. Perpendicular to $y = \frac{1}{2}x$
through $(0, 5)$

50. Parallel to $y + 1 = -3(x - 3)$
through $(4, -4)$

Write the equation of the described circle.

51. Center $(0, 0)$, radius 1

52. Center $(-3, 2)$, radius 4

53. Center $(0, 5)$, diameter 10

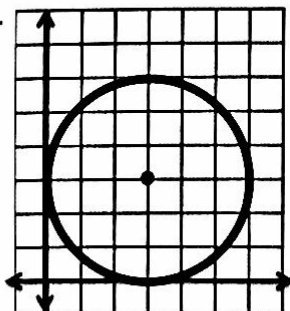
54. Center $(-6, 0)$, diameter 14

55. Tangent to the y-axis with center $(3, 5)$

56. Tangent to the x-axis with center $(5, 2)$

57. Center $(-1, 3)$, point on the circle $(-5, 11)$

58.



59. Diameter with endpoints $(4, 6)$ and $(12, 12)$

Identify each sequence as arithmetic or geometric.

60. 2, 6, 18, 54, 162,

60. _____

61. 3, 7, 11, 15, 19,

61. _____

62. 96, 48, 24, 12, 6,

62. _____

For #4 – 6, use the arithmetic sequence 10, 17, 24, 31, 38,

63. Write a recursive formula that represents the sequence.

63. _____

64. Write an explicit formula that represents the sequence.

64. _____

65. Find the 40th term in the sequence.

65. _____

For #7 – 9, use the geometric sequence 5, 10, 20, 40, 80,

66. Write a recursive formula that represents the sequence.

66. _____

67. Write an explicit formula that represents the sequence.

67. _____

68. Find the 10th term in the sequence.

68. _____