# Math 9 Homework List

* Math 8 Review package
* Chapter 2:

2.1 - p. 50 # 4-9, 10-17 (a,c,e) 18, 19, 21-26

2.2 - p. 60 # 4-9 (a), 10, 12-14, 28

2.3 - p. 68 # 5-8 (a-d), 9-15, 18-22

2.4 - p. 78 # 5, 7-13, 15-23, 26, 27, 28a, 31a

Ch. 2 Review - p. 82 # 5-25

Name: _____ Class: _____ Date: _____ ID: A

## Math 8: Final Exam Review

### Short Answer

1. Which of these numbers is a perfect square: 98, 28, 49, or 21?

2. Which 2 consecutive square numbers is 21 between?

3. The areas of 4 squares are given: 262 $cm^2$, 251 $cm^2$, 256 $cm^2$, and 266 $cm^2$.
   Which area is a perfect square?

4. Suzanne wants to put a fence around her square garden.
   If the garden covers an area of 121 $m^2$, how many metres of fencing does she need?

5. Find $\sqrt{100}$.

6. Find $6^2$.

7. Find the sum of $3^2 + 7^2$.

8. The side length of a square is $\sqrt{49}$ cm. Find its area.

9. The area of a square is 12 $m^2$. Find its side length.

10. The area of a square is 30 $m^2$. Find its side length.

11. Find $\sqrt{16 \times 16}$.

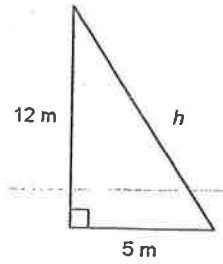
12. Which whole number is $\sqrt{164}$ closer to?

13. What is the greatest whole number less than $\sqrt{35}$?

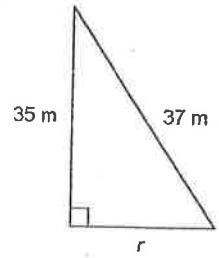
14. Simplify $\sqrt{11} + \sqrt{10}$ to the nearest whole number.

15. The legs of a right triangle measure 5 cm and 6 cm. What is the length of the hypotenuse?

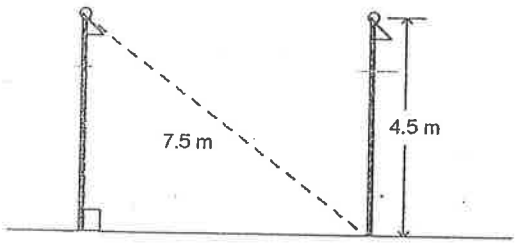
16. Find the length of the hypotenuse.




17. Find the length of the leg labelled *r*.




18. This diagram shows 2 flag poles that are 4.5 m tall. The distance from the top of the left pole to the base of the right pole is 7.5 m. What is the distance between the 2 flag poles?




19. Find the product $(+6) \times (-7)$. Use a number line if necessary.

20. Find the product of $-6$ and $-11$.

21. Find this product. $(+8)(-8)$

22. Find this product. $(-15) \times (-8)$

23. Find the quotient $(-12) \div (+6)$. Use a number line if it helps.

24. Inside a cooling tower, the temperature fell 5°C each hour for a total change of –35°C. Find the number of hours it took for the change in temperature.

25. Find this quotient. $(+64) \div (-8)$

26. Find this quotient. $(-14) \div (-7)$

27. Evaluate. $21 + 3(-4)$

28. Evaluate. $6 + (-11) - (-2)$

29. Evaluate. $(-5)[(-5) + 8]$

30. Evaluate. $(-3) \times (-5) - (-5)$

31. Evaluate. $-18 + 6 \div (-3) + 4$

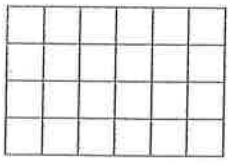
32. Multiply. $\frac{4}{11} \times 2$

33. Multiply. $4 \times \frac{7}{8}$

34. Find $\frac{5}{6}$ of 18.

35. Find $\frac{4}{9}$ of 27.

36. How many small squares in this rectangle should be shaded to represent $\frac{1}{3}$ of $\frac{1}{4}$?



37. Find $\frac{3}{8}$ of $\frac{4}{9}$.

38. Multiply. $\frac{5}{6} \times \frac{2}{3}$

39. Find the common factors of 9 and 18.

40. Write $3\frac{4}{5}$ as an improper fraction.

41. Write $\frac{39}{8}$ as a mixed number.

42. Multiply. $3\frac{1}{2} \times 3\frac{1}{3}$

43. Find this quotient. $6 \div \frac{2}{4}$

44. Find this quotient. $\frac{4}{5} \div 3$

45. Find this quotient. $\frac{5}{3} \div \frac{15}{7}$

46. Divide. $\frac{1}{2} \div \frac{9}{10}$

47. Divide. $2\frac{1}{2} \div \frac{1}{7}$

48. Divide. $1\frac{1}{5} \div 2\frac{1}{2}$

49. Jay needs $1\frac{3}{4}$ cups of flour for a batch of cookies.
How many batches can he make with 10 cups of flour?

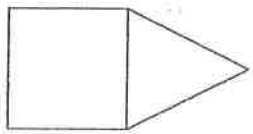
50. Patrice mixed $2\frac{1}{3}$ cans of yellow paint with $\frac{3}{4}$ of a can of white paint. How much paint did he mix?

51. How many $\frac{4}{5}$-cup servings are in 12 cups of fruit?

52. Evaluate. $\frac{5}{6} - \frac{4}{9} \div \frac{2}{3}$

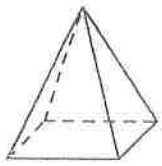
53. Evaluate. $\frac{2}{3} + \frac{3}{4} \times \frac{8}{5}$

54. This is an incomplete net for a triangular prism. What shapes do you add to complete this net?

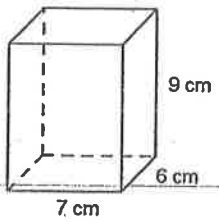


55. What shapes do you need to make a hexagonal pyramid?

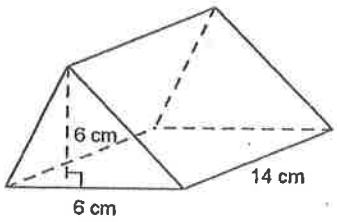
56. Draw a net for this object.



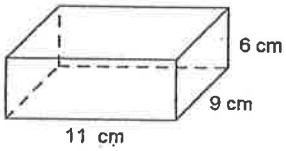
57. Find the surface area of this right rectangular prism.



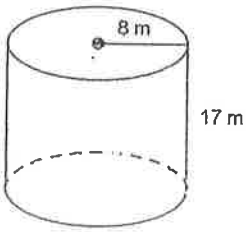

58. Calculate the area of the 2 triangular faces of this right triangular prism.



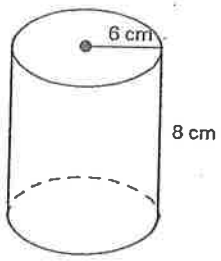

59. Find the volume of this rectangular prism.




60. Find the surface area of this cylinder.



61. Find the volume of this cylinder. Round your answer to the nearest tenth.




62. Write 1% as a decimal.

63. Write $\frac{2}{5}$ as a percent.

64. Write 0.24 as a percent.

65. Write 165% as a decimal.

66. Write this fraction as a percent.
$\frac{853}{100}$

67. Find the percent increase from 210 to 370. Round to the nearest tenth if necessary.

68. Find the percent decrease from 230 to 130. Round to the nearest tenth if necessary.

69. The sales taxes of a province are 15%. How much tax do you pay on a $43.80 purchase?

70. The sales taxes are 14%. Find the total cost of a video game with a list price of $82.

71. Write the part-to-whole ratio 11:16 as a percent.

72. Petra sold 24 adult tickets, 23 students tickets, and 8 child tickets for the school concert. What is the ratio of student tickets to total number of tickets?

73. The ratios ☒:35 and 4:5 are equivalent. Find the missing number.

74. The ratios 14: ■ and 7:5 are equivalent. Find the missing number.

75. Write the ratio 12:20:16 in simplest form.

76. Write the ratio 3:21 with first term 1.

77. Write the ratio 18:6 with second term 1.

78. Find the value of the variable.
$9:8 = p:72$

79. Find the value of the variable.
$6:f = 4:20$

80. Chantelle types 280 words in 4 min. What is her unit rate of typing?

81. A cruise ship travels a distance of 170 km in 10 h. What is the average speed of the ship?

82. At an average speed of 56 km/h, how far can you travel in 6 h?

83. A 15-L container of water costs $18.75. What is the cost per litre?

84. Solve this equation. $25 + 5x = 10$

85. Solve this equation. $11 + \frac{d}{6} = 22$

86. Evaluate. $-7(5 + 4)$

87. Solve this equation: $-18 = 3(z + 4)$

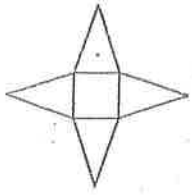
88. Solve this equation: $8 + 2(x + 4) = 18$

89. Complete the table of values for the linear relation $y = -5x + 10$.

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $y$ | | | | | |

## Math 8: Final Exam Review
## Answer Section

### SHORT ANSWER

1. 49
2. 16 and 25
3. $A = 256$ cm²
4. 44 m
5. 10
6. 36
7. 58
8. 49 cm²
9. $\sqrt{12}$ m
10. $\sqrt{30}$ m
11. 16
12. 13
13. 5
14. 6
15. $\sqrt{61}$ cm
16. 13 m
17. 12 m
18. 6.0 m
19. –42
20. +66
21. –64
22. +120
23. –2
24. 7 h
25. –8
26. +2
27. 9
28. –3
29. –15
30. 20
31. –16
32. $\frac{8}{11}$
33. $\frac{7}{2}$
34. 15
35. 12
36. 2
37. $\frac{1}{6}$
38. $\frac{5}{9}$
39. 3, 9
40. $\frac{19}{5}$
41. $4\frac{7}{8}$
42. $11\frac{2}{3}$
43. 12
44. $\frac{4}{15}$
45. $\frac{7}{9}$
46. $\frac{5}{9}$
47. $17\frac{1}{2}$
48. $\frac{12}{25}$
49. 5 batches
50. $3\frac{1}{12}$
51. 15
52. $\frac{1}{6}$
53. $1\frac{13}{15}$
54. 1 triangle and 2 squares
55. 1 hexagon and 6 triangles
56. 
57. 318 cm²
58. 36 cm²
59. 594 cm³
60. $400\pi$ m²
61. 904.8 cm³
62. 0.01
63. 40%
64. 24%
65. 1.65
66. 853%
67. 76.2%
68. 43.5%
69. $6.57
70. $93.48
71. 68.75%
72. 23:55
73. 28
74. 10
75. 3:5:4
76. 1:7
77. 3:1
78. 81
79. 30
80. 70 wpm
81. 17 km/h
82. 336 km
83. $1.25/L
84. –3
85. 66
86. –63
87. –10
88. 1
89.

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $y$ | 10 | 5 | 0 | –5 | –10 |