MATH01ReviewSheet

1.

$$1004 - 93 =$$

2.

$$304 \cdot 401 =$$

3. When 2 is divided by 14, the quotient is ____ and the remainder is ____.

4. When 115 is divided by 11, the quotient is ____ and the remainder is ____

5. Evaluate each of the following expression:

a)

$$2^3 =$$

b)

$$3^3 =$$

c)

$$3 \times 10^2 =$$

d)

$$\sqrt{36} =$$

6.

$$17^0 =$$

7.

$$18 - 2(6-2) =$$

8.

$$22 - 9 - 7 =$$

9.

$$2 \cdot 7 + (26 - 3) =$$

10.

$$0 - 2 + 5 =$$

11.

$$3 \cdot 4 \cdot 5 \div 4 - 3 =$$

12.

$$18 - 0 \div 6 =$$

13.

$$4 + 3 \cdot 4 - (3 + 3 \cdot 1) =$$

14.

$$5 + 32 \div 4 =$$

15.

$$11 \cdot 5 - 18 =$$

16.

$$(4 \cdot 4)^2 =$$

17.

$$[32 \div (12 \div 3)]^2 =$$

18.

$$6 \div 3 \cdot 2 =$$

19. Evaluate each expression:

a)

$$(-8)^2 =$$

b)

$$-8^2 =$$

20.

$$25 - (-11) =$$

$$9(-12) =$$

$$36 \div (-4) =$$

$$1 - 9 + 9 - 8 - 9 =$$

$$\frac{5(-27)}{3} =$$

$$-7^2 =$$

$$6 - 3(3-5) =$$

$$\frac{27 - (-1)}{8 + (-1)} =$$

$$\frac{28 - 2\sqrt{16}}{5} =$$

21.

$$\frac{3}{4} \cdot \frac{3}{4} \cdot \frac{3}{4} =$$

22.

$$(\frac{3}{5})^3 =$$

23.

$$\frac{2}{5} \cdot \frac{3}{8} \cdot 0 =$$

24. Convert the mixed number to an improper fraction.

$$4\frac{1}{2} =$$

25. Convert the improper fraction to a mixed number.

$$\frac{9}{2} =$$

26.

$$\frac{4}{5} \cdot \frac{3}{8} =$$

27. Find the prime factorization :

$$45 = (\_\_)^2 \times \_\_$$

28.
The greatest common factor (GCF) of 24 and 54 is ____.

29.
The least common multiple (LCM) of 8 and 36 is ____.

30.

$$3 \cdot \frac{1}{3} =$$

31.

$$\frac{14}{15} \cdot 9 =$$

32.

$$4\frac{5}{6} \div 1\frac{2}{3} =$$

33.

$$4\frac{1}{3} - 2\frac{1}{5} =$$

34.

$$3\frac{5}{7} + 3\frac{5}{8} =$$

35.

$$\frac{1}{8} + \frac{1}{12} - \frac{1}{16} =$$

36. Compare: Use $<$, $>$, or $=$ to complete each statement:

$$\frac{7}{8} \boxed{?} \frac{5}{6}$$

$$\frac{21}{17} \boxed{?} \frac{23}{22}$$

37. List the following fractions in orders from largest to smallest:

$$\frac{3}{7}, \quad \frac{16}{25}, \quad \frac{25}{49}$$

Largest= _____ , Middle=_____ , Smallest=_____.

38. Divide or state that the division is undefined.

a)

$$-\frac{4}{5} \div (-\frac{3}{4}) =$$

b)

$$24 \div (-\frac{3}{5}) =$$

39. Perform the following operations: (Note: Your answer is a fraction.)

a)

$$-\frac{2}{3} - (-\frac{1}{9}) =$$

b)

$$\frac{2}{3} - \frac{3}{8} =$$

c)

$$-\frac{3}{8} + 3 =$$

d)

$$-1 + (-\frac{2}{3}) =$$

40.

$$563.1 + 61.13 =$$

$$573.7 - 7.495 =$$

41.

$$7.464 \div 2.4 =$$

$$5.9 \times 4.19 =$$

42 Round the given value to the nearest hundredths.

$$55538.12079 \approx$$

43. Convert the number 0.9834 into its equivalent percent.

Answer= _____ %

44. Write each number in scientific notation.

(a) $66600000 = A \times 10^n$.
The number A is ____.
The number n is ____.

(b) $0.000237 = A \times 10^n$.
The number A is ____.
The number n is ____.

45. Multiply. Give the answer in scientific notation.

$$(9\times 10^{9})(6\times 10^{-5})$$

- A. 5.4×10^{3}
- B. 5.4×10^{4}
- C. 5.4×10^{6}
- D. 5.4×10^{5}
- E. 54×10^{4}

46.

$$\frac{3}{2} \quad of \quad 64 =$$

$$0.16 \text{ of } 31 =$$

$$350\% \text{ of } 56 =$$

47. Solve the proportion:

$$\frac{4}{5} = \frac{}{70}$$

48. What volume is 19 % of 13 liters?

Answer= _____ liters.

49. 11 kilometers is what percent of 25 kilometers?

Answer= _____ %.

50. 795 dollars is 75 % of what amount?

Answer= _____ dollars.

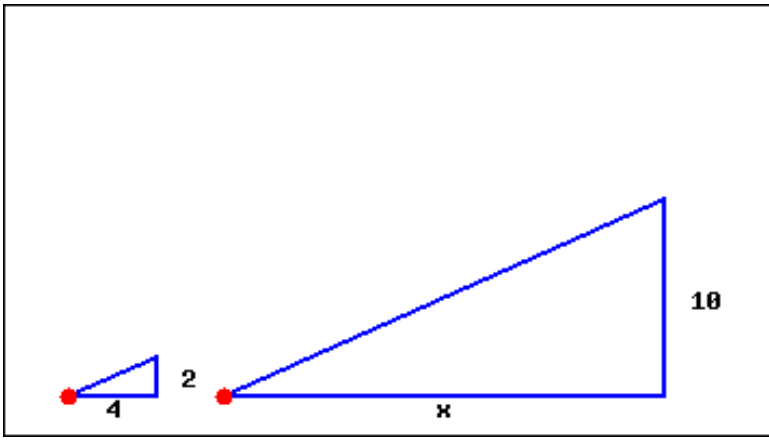
51. Peter bought 8 toy cars for $96.
How much do 10 cars cost?

- A. $106
- B. $80
- C. $120
- D. $94

52. Over four years the price of a car decreased from $25000 by 30%. What is the price of the car now?

- A. $83333
- B. $35714
- C. $17500
- D. $7500

53. The triangles below are similar. Find the missing length.



54. Evaluate each of the following expressions when $a=-1$ and $b=-3$:

a)

$$(a+b)^2 =$$

b)

$$a^2+b^2 =$$

c)

$$a^2+2ab+b^2 =$$

55. If $x=-2$, evaluate

$$x^2-x+3 =$$

- A. -1
- B. 5
- C. 9
- D. 1

56. Use the formula $C=\frac{5}{9}(F-32)$ for converting degrees Fahrenheit into degrees Celsius. Find the Celsius measure C of the Fahrenheit temperature $F=5$.

- A. 48.6
- B. 15
- C. -29
- D. -15
- E. -48.6

57. Solve the equation $7x+9=-3$ algebraically.

$$x =$$

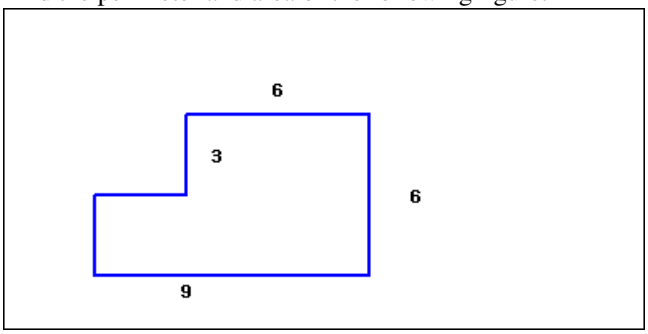
58. Solve the equation $9x+1=2x+5$ algebraically.

$x=$

59. Let a and b represent the lengths of the legs of a right triangle, and c represent the length of the hypotenuse. Find b if $a=15$ meters and $c=25$ meters.

Answer (in meters): $b=$

60.
Find the perimeter and area of the following figure:



Answers :

1. 911;
2. 121904;
3. quotient is 0 and remainder is 2;
4. quotient is 10 and remainder is 5;
5. a) 8; b) 27; c) 300; d) 6;
6. 1;
7. 10;
8. 6;
9. 37;
10. 3;
11. 12;
12. 18;
13. 10;
14. 13;
15. 37;
16. 256;
17. 64;
18. 4;
19. a) 64; b) -64;
20. 36; -108; -9; -16; -45; -49; 12; 4; 4;
21. 27/64;
22. 27/125;
23. 0;
24. 9/2;
25. $4\frac{1}{2}$;
26. 3/10;
27. 3 and 5;
28. 6;
29. 72;
30. 1;
31. $8\frac{2}{5}$;
32. $2\frac{9}{10}$;
33. $2\frac{2}{15}$;
34. $7\frac{19}{56}$;
35. 7/48;
36. $>$ and $>$;
37. Largest=$\frac{16}{25}$; Middle=$\frac{25}{49}$; Smallest=$\frac{3}{7}$;
38. 16/15; -40;
39. a) $\frac{-5}{9}$; b) $\frac{7}{24}$; c) $\frac{21}{8}$; d) $\frac{-5}{3}$;
40. 624.23; 566.205;
41. 3.11; 24.721;
42. 55538.12;
43. 98.34;
44. a) $A=6.66$, $n=7$; b) $A=2.37$, $n=-4$;
45. D;
46. 96, 4.96, 196;
47. 56;
48. 2.47;
49. 44;
50. 1060;
51. C;
52. C;
53. 20;
54. a) 16; b) 10; c) 16;
55. C;
56. D;
57. $\frac{-12}{7}$;
58. $\frac{4}{7}$;
59. 20;
60. Area= 45; Perimeter=30.