

## KEY

### Independent Training and Apprenticeship Program Extra Math Problems

Fractions:

1)  $1/5 + 1/8 = 13/40$

2)  $1/8 + 7/6 = 31/24$

3)  $1/4 + 1/8 = 3/8$

4)  $1/2 - 1/10 = 2/5$

5)  $4/5 - 6/9 = 2/15$

6)  $1/2 - 1/4 = 1/4$

7)  $5/9 * 2/3 = 10/27$

8)  $7/8 * 1/5 = 7/40$

9)  $4/7 \div 4/5 = 5/7$

10)  $9/12 * 4/16 = 3/16$

Decimals:

11)  $4.568 + 5.5 = 10.068$

12)  $0.004 + 1.03 = 1.034$

13)  $4.569 - 2.0004 = 2.5686$

14)  $103.5 - 98.05 = 5.45$

15)  $5.6 * 2.4 = 13.44$

16)  $10.26 * 1.5 = 15.39$

17)  $0.556 * 12.2 = 6.7832$

18)  $12.986 \div 5.067 = 2.563$

19)  $5.4 \div 0.864 = 6.25$

20)  $204.369 \div 10.0023 = 20.4322$

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Exponents:

21)  $8^2 = 64$

22)  $2^6 = 64$

23)  $(4a)^3 = 64a^3$

24)  $3^4 + 4^3 = 145$

25)  $7^2 + 5^0 = 50$

26)  $10^2 - 9^2 = 19$

27)  $2^6 - 6^2 = 28$

28)  $5^2 * 5^4 = 5^6 = 15,625$

29)  $(6^4)^2 = 6^8 = 1,679,616$

30)  $2^8 - 2^4 = 240$

Convert to Scientific Notation

31)  $2569.32 = 2.56932 * 10^3$

32)  $0.00456 = 4.56 * 10^{-3}$

33)  $0.000000091 = 9.1 * 10^{-8}$

34)  $1234567.89 =$   
 $1.23456789 * 10^6$

35)  $2486.1793 = 2.4861793 * 10^3$

Convert to Decimal Notation

36)  $3.328 * 10^{-3} = .003328$

37)  $6.426 * 10^2 = 642.6$

38)  $9.85641 * 10^4 = 98564.1$

39)  $4.36145 * 10^{-5} = .0000436145$

40)  $4.225 * 10^6 = 4225000$

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### Algebra

41)  $3x + 4 = 22$   
 $x = 6$

42)  $4x - 10 = -2$   
 $x = 2$

43)  $6t + 14 = 80$   
 $x = 11$

44)  $8s - 36 = 100$   
 $s = 8$

45)  $2d + 4 = 16$   
 $d = 6$

46)  $x = yz$  if  $x = 6$  and  $y = 2$  find  $z$   
 $z = 3$

47)  $x = y/z$  if  $x = 10$  and  $y = 40$   
find  $z$   
 $z = 4$

48)  $x = y/z$  if  $x = 5$  and  $z = 4$  find  
 $y$   
 $y = 20$

49)  $6(y + 4) = 3(y + 1)$   
 $y = -7$

50) Solve for  $Q$   
 $C = (x + Q)/ts$   
 $Q = (c)(ts) - x$

### Geometry

51) In a right triangle one leg is 12  
and the other is 5. Find the  
hypotenuse  
13

52) If the hypotenuse is 5 and one  
leg of the triangle is 3, what is  
the length of the other leg?  
4

53) Find the area of a rectangle  
that has a width of 6 and  
height of 2.  
 $12 \text{ ft}^2$

54) If the area of the rectangle is  
24 and the width of the  
rectangle is 3 what is the  
height?  
8 ft

55) What is the volume a 4 foot  
square?  
 $64 \text{ ft}^3$

56) What is the volume of the  
rectangle with dimensions  
 $3 \times 6 \times 12$ ?  
 $216 \text{ ft}^3$

57) Find the area of the circle  
with radius 5.  
78.5

58) What area of the circle with  
diameter of 12?  
113.04

**KEY**

59) What is the volume of the cylinder that has a radius of 6 and height of 4 ft.?

452.16

60) Find the volume of the cylinder that is 10 feet tall and 2 feet in diameter.

31.4