

Q1P2 Ch. 1-1 Plus Order of Operations

Date _____ Period _____

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Write each as an algebraic expression. TIP: these are NOT equations.

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|-----------------------|---------------------------------|
| 1) 10 less than n | 2) half of 24 |
| 3) 2 squared | 4) 11 more than 2 |
| 5) 12 increased by 12 | 6) the difference of x and 13 |

Write each as an algebraic expression. TIP: these ARE equations.

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| 7) z squared is equal to 9 | 8) 11 less than y is 13 |
| 9) n decreased by 18 is equal to 48 | 10) the difference of n and 6 is 13 |
| 11) the product of n and 5 is 27 | 12) x increased by 5 is 46 |
| 13) 5 more than n is equal to 26 | 14) x decreased by 13 is equal to 41 |
| 15) 11 more than z is 47 | 16) c cubed is equal to 37 |
| 17) half of b is equal to 17 | 18) n increased by 11 is 38 |
| 19) the product of n and 7 is 35 | 20) the quotient of p and 5 is equal to 24 |
| 21) the sum of z and 12 is equal to 42 | 22) 13 less than a is 25 |

Write each as an algebraic expression. TIP: these ARE equations. Also, you may have to define your OWN variable.

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| 23) the sum of a number and 6 is equal to 41 | 24) 7 more than a number is 46 |
| 25) a number cubed is 50 | 26) 6 less than q is equal to 22 |
| 27) a number squared is equal to 16 | 28) the quotient of a number and 4 is 24 |

Write each as a verbal expression. Note: why would a mathematician do this? Yecch.

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|-------------|-------------------|
| 29) $p - 7$ | 30) 3^3 |
| 31) $8p$ | 32) $\frac{a}{2}$ |

Evaluate each using the values given. TIP: PARENTHESES ARE YOUR FRIEND WHEN SUBSTITUTING. Also, you may not find negative answers in this set.

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|---|---|
| 33) $p + qp$; use $p = 6$, and $q = 4$ | 34) $(a)(5 - b)$; use $a = 2$, and $b = 2$ |
| 35) $p - (6 - q)$; use $p = 5$, and $q = 2$ | 36) $\frac{x - y}{3}$; use $x = 5$, and $y = 2$ |
| 37) $(x)(y + y)$; use $x = 3$, and $y = 6$ | 38) $z + x + 5$; use $x = 6$, and $z = 2$ |

Evaluate each using the values given. TIP: PARENTHESES ARE YOUR FRIEND WHEN SUBSTITUTING. Caution: you may find negative answers in this set.

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|--|--|
| 39) $h + \frac{j}{6}$; use $h = 5$, and $j = -6$ | 40) $xy + 1$; use $x = 5$, and $y = -1$ |
| 41) $2 - (x - y)$; use $x = -5$, and $y = 1$ | 42) $y + 6 + x$; use $x = -4$, and $y = 3$ |

43) $q + q - p$; use $p = 2$, and $q = 6$

44) $m + p + m$; use $m = 5$, and $p = 6$

Evaluate each using the values given. TIP: PARENTHESES ARE YOUR FRIEND WHEN SUBSTITUTING. Note: there are a few more steps in this set.

45) $1 + \frac{p}{6} - (m - m)$; use $m = 4$, and $p = 6$

46) $b - \frac{b + a - a}{6}$; use $a = 1$, and $b = 6$

47) $(y)(x - (y - 1 + 2))$; use $x = 6$, and $y = 2$

48) $\frac{k - h}{6} + 2j$; use $h = 5$, $j = 4$, and $k = 5$

49) $2 + 6 - (b - b) - a$; use $a = 2$, and $b = 2$

50) $x + z + x - (x - 4)$; use $x = 5$, and $z = 2$

Evaluate each expression. TIP: follow PE(MD)(AS).

51) $\frac{6}{3 + 3}$

52) $\frac{8}{5 - 1}$

53) $(4)((2)(4))$

54) $1 + 4 - 3$

55) $4 + \frac{8}{4}$

56) $\frac{9 + 11}{4}$

Evaluate each expression. TIP: watch out for negatives! Follow PE(MD)(AS).

57) $6 - 4 - 4$

58) $-3 - -4 - 2$

59) $-5 + 2 + 4$

60) $((6)(-3))(3)$

61) $(-4)(3) - 4$

62) $(-5)\left(\frac{18}{-6}\right)$

Evaluate each expression. TIP: these have more steps. Follow PE(MD)(AS).

63) $(6 - 1)(2) - \frac{6}{6}$

64) $5 + 2 - 2 + 6 + 6$

65) $1 - (6 - 6) + (5)(3)$

66) $(6 + 6 - 5)(4) + 4$

67) $6 + 1 - 1 + 4 + 4$

68) $\frac{(2^2)(2)}{1 + 3}$

Evaluate each expression. TIP: what is your friend when you substitute? Follow PE(MD)(AS).

69) $y^2 - y - x - z$; use $x = 5$, $y = 5$, and $z = 1$

70) $6y - (x^3 - x)$; use $x = 2$, and $y = 3$

71) $6 + h + h - j$; use $h = 1$, and $j = 1$

72) $p + m + 2 + 4 + p$; use $m = 6$, and $p = 2$

73) $a + (a + a)(b - b)$; use $a = 4$, and $b = 4$

74) $\frac{p}{5} + (q - 5)^2$; use $p = 5$, and $q = 5$

75) $8 - (x - (x - y))$; use $x = 4$, and $y = 4$

76) $8 + y - (x - x)$; use $x = 1$, and $y = 1$

77) $m + n + n - \frac{6}{6}$; use $m = 5$, and $n = 6$

78) $h + h - (j - j^2)$; use $h = 4$, and $j = 1$

79) $10 - (j + h) + j$; use $h = 1$, and $j = 4$

80) $yx^2 - \frac{y}{6}$; use $x = 3$, and $y = 6$

Answers to Q1P2 Ch. 1-1Plus Order of Operations (ID: 1)

1) $n - 10$

2) $\frac{24}{2}$

3) 2^2

4) $2 + 11$

5) $12 + 12$

6) $x - 13$

7) $z^2 = 9$

8) $y - 11 = 13$

9) $n - 18 = 48$

10) $n - 6 = 13$

11) $n \cdot 5 = 27$

12) $x + 5 = 46$

13) $n + 5 = 26$

14) $x - 13 = 41$

15) $z + 11 = 47$

16) $c^3 = 37$

17) $\frac{b}{2} = 17$

18) $n + 11 = 38$

19) $n \cdot 7 = 35$

20) $\frac{p}{5} = 24$

21) $z + 12 = 42$

22) $a - 13 = 25$

23) $n + 6 = 41$

24) $n + 7 = 46$

25) $n^3 = 50$

26) $q - 6 = 22$

27) $n^2 = 16$

28) $\frac{n}{4} = 24$

29) 7 less than p

30) 3 cubed

31) the product of 8 and p

32) the quotient of a and 2

33) 30

34) 6

35) 1

36) 1

37) 36

38) 13

39) 4

40) -4

41) 8

42) 5

43) 10

44) 16

45) 2

46) 5

47) 6

48) 8

49) 6

50) 11

51) 1

52) 2

53) 32

54) 2

55) 6

56) 5

57) -2

58) -1

59) 1

60) -54

61) -16

62) 15

63) 9

64) 17

65) 16

66) 32

67) 14

68) 2

69) 14

70) 12

71) 7

72) 16

73) 4

74) 1

75) 4

76) 9

77) 16

78) 8

79) 9

80) 53