

Review Due: Thursday, December 5

Test: Friday, December 6

Q2 Test 1 Review

Part I: Order of Operations

$$1) 21 - 12 \cdot 3 + 5 =$$

$$2) 100 - 12^2 \cdot (-\frac{1}{2}) + (8)(-2) =$$

$$3) 6 - 18 \div (-3) \cdot 2 + 12 =$$

$$4) x = -5: \quad 3x^2 \div (8x + 55) - 6x =$$

$$5) \quad x = -4 \quad 3x^2 \div (10 + 2x) \cdot (\frac{1}{2}) - 11x$$

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6) Check to see if the ordered pair is a solution in BOTH equations: Yes or No? _____

(10, -3)

$$y - 11 = -\frac{1}{2}(2x + 8)$$

$$3x - 11y = -3$$

7) Check to see if the ordered pair is a solution in BOTH equations: Yes or No? _____

(- $\frac{3}{4}$, -13)

$$y - 3 = 2(4x - 5)$$

$$8x - 3y = 33$$

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8) Evaluate each problem in $\sqrt{b^2 - 4ac}$

a) when $a = -3$, $b = -4$, and $c = 7$

b) when $a = 10$, $b = -1$, and $c = -3$

c) when $a = -4$, $b = 16$, and $c = 9$

d) when $a = 4$, $b = -13$, and $c = 10$

Answer Key:

- | | | | | |
|--|----------|-------|-------|-------|
| 1) -10 | 2) 156 | 3) 30 | 4) 35 | 5) 56 |
| 6) No, it doesn't work in the 2 nd equation | | | | |
| 7) Yes | 8) a) 10 | b) 11 | c) 20 | d) 3 |

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Part II: Equations

$$1) 10x - 8 = -33$$

$$2) 34 - 6x = -14$$

$$3) \frac{2}{3}x + 15 = 33$$

$$4) -23 - \frac{5}{8}x = 7$$

$$5) (x/7) + 40 = 43$$

$$6) 24 - (x/5) = 30$$

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$$7) (6x - 5) - (10x - 11) = 34$$

$$8) 4(3x - 7) + 6(3x + 4) = -49$$

$$9) 6(5x - 4) - 4(7x - 9) = 36$$

$$10) 6(4x - 5) - 5(7x - 6) = -110$$

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$$11) 5(3x - 2) = 4(6x + 11)$$

$$12) 8(5x - 3) = 6(5x + 1)$$

$$13) \frac{4(6x - 4) - 3}{11} = 7$$

$$14) \frac{4(3x + 3)}{6} + 8 = -8$$

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$$15) \frac{6(4x - 3) + 3}{7} = 15$$

$$16) \frac{5(2x - 6)}{12} - 15 = -10$$

$$17) 5|6x - 36| + 19 = 259$$

$$18) -3 |5x + 30| - 9 = -39$$

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$$19) -2|14x - 35| - 35 = 175$$

$$20) 2|\frac{1}{2}x + 8| - 5 = 59$$

$$21) 6|4x - 12| - 225 = -9$$

$$22) 4|5x - 10| + 52 = 12$$

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$$23) 4 \left| \frac{1}{3}x - 12 \right| - 80 = -8$$

$$24) \frac{2}{3} |24 - 8x| + 17 = 33$$

Answer Key

1) $x = -\frac{5}{2}$

2) $x = 8$

3) $x = 27$

4) -48

5) $x = 21$

6) $x = -30$

7) $x = -7$

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

9) $x = 12$

10) $x = 10$

11) $x = -6$

12) $x = 3$

13) $x = 4$

14) $x = -9$

15) $x = 5$

16) $x = 9$

17) $x = \{-2, 14\}$

18) $x = \{-8, -4\}$

19) No Solution

20) $x = \{-80, 48\}$

21) $x = \{-6, 12\}$

22) No Solution

23) $x = \{-18, 90\}$

24) $x = \{0, 6\}$