

## 1.2 - 1.3 Quiz Review

Name Key

1. Solve each of the following for x

$$\frac{x}{-2} + 3 = 24$$

$$\frac{x}{-2} = 21$$

$$\boxed{x = -42}$$

$$b. \frac{3x+3}{6} = x - 5$$

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

$$3x+3 = 6x-30$$

$$3x = 33$$

$$\boxed{x = 11}$$

$$4. c. \frac{2(x-4)}{2} = \frac{3x+5}{4} \cdot 4$$

$$4(x-4) = 3x+5$$

$$4x-16 = 3x+5$$

$$\boxed{x = 21}$$

2. Solve each of the following for x and state how many solutions each has:

$$a. 5(7x-8) + 8x = -255$$

$$35x - 40 + 8x = -255$$

$$43x = -215$$

$$\boxed{x = -5}$$

one solution

$$b. 92 = 8x + 4(x-1)$$

$$92 = 8x - 4x - 4$$

$$96 = 4x$$

$$\boxed{x = 24}$$

one solution

$$c. 3x - 9 = 3(x-4) + 2$$

$$3x - 9 = 3x - 12 + 2$$

$$-9 = -10$$

$$\boxed{\text{No solution}}$$

3. The sum of three consecutive number is 219. What are the three integers?

$$x + (x+1) + (x+2) = 219$$

$$3x + 3 = 219$$

$$3x = 216$$

$$x = 72$$

$$\boxed{72, 73, 74}$$

7. Hans needs to rent a moving truck for his move across Canada. **Company A** charges a rate of \$40 per day and a 100 dollar base fee. **Company B** charges a \$160 base fee, and then \$20 per day. After how many days will both companies charge the same amount?  $x = \# \text{ of days}$

$$\text{Company A: } 40x + 100$$

$$\text{Company B: } 160 + 20x$$

$$40x + 100 = 160 + 20x$$

$$\frac{20x}{20} = \frac{60}{20}$$

$$x = 3$$

After 3 days they  
will charge the same

8. Shelly works for a lawn mowing business. Every month the company pays her \$200, plus \$15 per lawn she mows. If shelly earned a total of \$395 last month, how many lawns did she mow?  $x = \# \text{ of lawns mowed}$

$$200 + 15x = 395$$

$$\frac{15x}{15} = \frac{195}{15}$$

$$x = 13$$

∴ she mowed 13  
lawns

9. Three friends go buy the same shirt and use a \$5 off coupon. They spend a total of \$66. What is the price of one shirt without the coupon?

$$3(x - 5) = 66$$

$$x - 5 = 22$$

$$x = 27$$

one shirt costs \$27

10. Velma buys 5lbs of sliced deli meat and 7lbs of sliced cheese. The deli meat cost \$2 less per pound than the cheese. She pays a total of \$56. Write an equation that represents the scenario, make sure to define your variables.

$d = \text{deli meat (lb)}$   
 $c = \text{cheese (lb)}$

$$5d + 7c = 56$$

$$5(c - 2) + 7c = 56$$

$$5c - 10 + 7c = 56$$

$$12c = 66$$

$$c = 5.5$$

$$d = c - 2$$

1 pound of cheese: \$5.50  
1 pound of deli meat: \$3.50