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| Important information from Unit 3 |
| Combining Like terms | Finding Equivalent expressions | Using the DistributiveProperty | Writing and using expressions  | Solving equations |

8.) Thomas is bringing in his dog to the veterinary hospital. It will cost $120 for the dog’s shots plus $20 per appointment.

***Part A***

Write an equation showing the total cost, t, for the amount he will owe.

 t = 120 + 20x

***Part B***

The veterinary hospital decides to give Thomas a 10% discount for his total cost. Write a new equation showing this updated cost.

 t = 0.10(120 + 20x)

***Part C***

How much will it cost if Thomas’ dog needs 3 appointments?

 t = 120 + 20x

 120 + 20(3)

 120 + 60

 $180.00

9.) Write an equivalent expression for **2 + 18x** hint: use the distributive property

 2(1 + 9x)

10.) Which of the following are equivalent to **5x(x – 3)** Choose all that apply

1. 5$x^{2}$ – 15x
2. 5($x^{2}$ – 3x)
3. -15x + 5$x^{2}$
4. (x + 3)5x
5. 6x – 8

11.) Find an equivalent expression for the following expression: **2y(1 – 2y) – (2y + 7)**

 2y – 4y – 2y + 7

 -4y + 7

12.) Solve the equation $\frac{1}{4}$**(x + 8) +** $\frac{3}{4}$**x = 10**

 $\frac{1}{4}$x + 2 + $\frac{3}{4}$x = 10

 x + 2 = 10

 x = 8

13.)



Which expression showing the perimeter of the rectangle is incorrect? Explain why

2(3x) + 2(4x + 3) 4(3x) + 2(4x) 3 + 3 + x(3 + 3 + 4 + 4)

6x + 8x + 3 12x + 8x 6 + 3x + 3x + 4x + 4x

14x + 3 20x 6 + 14x