8h review

***Test Date*** August 31, 2018

***Part I*** Solve each equation by adding or subtracting show all steps (3pts each)

1. $x+8=9$
2. $-8+c=2$
3. $r+0.4=0.7$
4. $k-8=-7$
5. $\frac{3}{5}$ + m = $\frac{4}{5}$

***Part II*** Solve each equation by multiplying and dividing show all steps (3pts each)

1. $\frac{j}{3}=-9$
2. $-4.8=-6v$
3. $13=-2b$
4. $\frac{2}{3}x=-20$
5. $9y=-108$

***Part III*** solve each multistep equation

1. $5=2g+1$
2. $6=-2(7-c)$
3. $\frac{j}{6 }+4=15$
4. $\frac{j}{8 }-\frac{3}{4 }=\frac{5}{4 }$
5. $10y-(4y+8)=-20$

***Part IV*** Solve each equation check your answer

1. $8r+4=10+2r$
2. 2. $28-0.3y=0.7y-12$
3. 3. $8\left(x+1\right)=4x-8$

***Part V*** solve each equation for the given variable.

1. The formula $a=46c$ gives the floor area a in *a in square meters that* can be wired using *c* circuits.

a. solve $a=46c$ for *c*

*b. if a room is 322 square meters, how many circuits are required to wire the room.*

1. The formula for a person’s typing speed is s= $\frac{w-10e}{m}$, where s is speed in words per minute, w is number of words typed and e is number of errors. solve this formula for e
2. solve $st+3t=6 $ for s
3. solve $b+c=\frac{10}{a}$for a

***Part VI*** solve each absolute value equation

1. $-8=\left|x+2\right|- 8$
2. $\left|4x\right|+9= 9$
3. $34=\left|3x+9\right|+7$

**Part VIII Write each inequality and words then graph them.**

|  |  |  |
| --- | --- | --- |
| Inequality | words | graph |
| $$x<-4$$ |  |  |
| $$m>17$$ |  |  |
| $$z\leq 0$$ |  |  |
| $$j\geq 32$$ |  |  |

 Part IX Solve each inequality by adding or subtracting graphs your answer

1. $226 >u+40$
2. $p-12\geq -3$
3. $x+25\geq -3$
4. $-45\geq g-16$

Part X solve each inequality by Multiplying and Dividing Graph your answer

1. $\frac{Y}{2}<-8.3 $
2. $-8\leq 200$
3. $65\leq -r$
4. $4m<-76$

Part XI Solve each Multistep inequality (show all steps

1. $2m+7>13$
2. $4y-9\geq 7$
3. $10>6+\frac{Y}{5}$
4. $3+ \frac{b}{5}\geq 7 $

Part XII. Read each situation and graph or construct a table of the given information

1. A shoe store is having a sale. The first pair of shoes sells for $40. The second pair sells for half price, or $20. The next pair sells for half of that, and so on. Make a table showing the cost of 1 to 4 pairs of shoes.
2. A pelican flies above the water searching for fish. Sketch a graph of its altitude from takeoff from shore to diving to the water to catch a fish. Label each section.

Part XIII Express each relationship as a table, a graph, and as a mapping diagram

1. (-1,2), (2, 4), 4, 5)
2. $\left(0,0\right),\left(2-4\right),(5,-7)$
3. $\left(2,3\right),\left(4,7\right),(6,8)$

Part XVI Give the Domain and Range of each relation

1. $\left(3,-1\right),\left(5,-2\right),\left(4,0\right),(3,1)$
2. $\left(2,-5\right),\left(4,31\right),\left(11,-11\right),(-21,3)$

|  |  |
| --- | --- |
| x | y |
| 3 | 9 |
| 5 | 20 |
| 2 | 4 |
| 8 | 40 |
| 6 | 36 |

Part XV Determine a relationship between X and Y values in each relation.

1.

|  |  |
| --- | --- |
| x | y |
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |

2.

|  |  |
| --- | --- |
| x | y |
| 1 | -4 |
| 3 | 0 |
| 4 | 1 |
| 5 | 2 |
| 6 | 3 |

Part XVI Evaluate each function for every imput value

1. $f\left(x\right)=3x+2,find x when e=4 and when x=8$
2. $For f\left(x\right)=1.5x-5, find f\left(x\right)when x=-2 and when x=-4 $
3. $f\left(x\right)=\frac{1}{3}x+2, find x when x=600and when x= -12 $

Part XVII Identify the dependent and independent variable

1. A company charges $10 an hour to rent go-cart
2. A small sized bottle of water costs $1.99 and a Large sized cost $3.49
3. A financial consultant charges $400 an hour
4. Gardeners buy fertilizers according to the size of the lawn.

Part XVIIII Graph each function for the given domain

1. $\left(x\right)=\frac{1}{3}x+2$

$$X= -3,0,3,,6$$

2 . $f\left(x\right)= │x│$+2

$$x=-1,01,2$$