9th Grade Final Review

Part I. 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 II Express each relationship as a table, a graph, and as a mapping diagram

1. (-1,2), (2, 51), (1, 3), (8, 22), (9, 51)
2. $\left(0,0\right),\left(2-4\right),(2,-2)$
3. $\left(2,3\right),\left(4,7\right),(6,8)$

Part III Give the Domain and Range of each relation

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

|  |  |
| --- | --- |
| x | y |
| 3 | 9 |
| 5 | 25 |
| 2 | 4 |
| 8 | 81 |
| 6 | 36 |

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

1.

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

2.

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

1. (1,4),(2,7),(3,10),(4,13)

Part V Evaluate each function for every imput value

1. $f\left(x\right)=3x+2,find x when e=7 and when x=-4$
2. $For f\left(x\right)=1.5x-5, find f\left(x\right)when x=6 and when x=-2 $
3. $f\left(x\right)=\frac{1}{3}r+2, find x when x=600and when x= -12 $

Part VI Graph each function for the given domain

1. $x-3y=-6$

$$X= -3,03,,6$$

1. $f\left(x\right)x^{2}=$

$$.x=-2,-1,0,1,2$$

1. $f\left(x\right)= │x│+2$

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