**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per.\_\_\_\_\_\_\_ Score:\_\_\_\_\_**

**U2 HWK # 2 *Proportional Relationships***

**1.** A florist is arranging flowers for a wedding. For every 2 pink flowers in a vase, he also includes 8 white flowers.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Complete the table below to show the relationship of white to pink flowers in each vase.      |  |  | | --- | --- | | Pink | White | | 1 |  | |  | 8 | |  | 12 | | 6 |  | | 1. Graph the white flower to pink flower relationship for each vase with pink flowers on the *x*-axis and white flowers on the *y*-axis. |

1. Find the ratio of white to pink for several different ordered pairs in the table.
2. Fill in the boxes to show the relationship between white flowers and pink flowers in a vase.

**4 times**

**=**

1. Use the equation and graph to determine how many white flowers there would be if the florist included 20 pink flowers.
2. If the florist included 120 white flowers, how many pink flowers would there be?

1. The graph given below shows the gas mileage that Penny gets in her car. The ratio 192:6 describes the miles to gallons fuel rate for her car.
2. What is the unit rate for this relationship?
3. Use the graph to approximate how many miles Penny can go if she has a 15 gallon tank in her car.
4. A proportional constant of relates the number of inches a flower grows to the number of weeks since being planted.
5. Fill in the missing items in the table if *x* represents the number of weeks that have past and *y* represents the height of the flower.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *x*  *(weeks)* | 1 | 3 |  | 9 | 30 |
| *y*  *(height)* |  |  | 2 |  |  |

1. Write an equation that represents this relationship and use the equation to predict how tall the flower will be after 8 weeks.
2. Is it probable for the flower to continue to grow in this manner forever?