Fill in each missing part – either the table, rule or graph.

**1.** Rule: 

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| x | -4 | -2 | 0 | 2 | 4 |
| y |  |  |  |  |  |

**3.** Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| x | 0 | 2 | 5 |
| y | -3 | 1 | 7 |

**2.** Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

**4.** Rule: x = 2y – 6

|  |  |  |  |
| --- | --- | --- | --- |
| x | -2 | 0 | 1 |
| y |  |  |  |

**5**. What can you say about the solutions of #1 and #4? ­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**6.** What can you say about the solutions of #1 and #2? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**7.** What can you say about the solutions of #2 and #3? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**8.** Find the volume: 8 cm (diameter) *Round to the nearest tenth.*

12 cm

**8.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**9.** Complete the table:

|  |  |  |
| --- | --- | --- |
| Original form | Factored form | Simplified exponent form |
| 53  54 |  |  |
| 32  x  3  x4 |  |  |
|  |  |  |

**10.** Write the following in scientific notation: **10a.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**a.** 2,450,000,000 **b.** 0.000003 **c.** 1345.8 **10b.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**10c.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**11.** Write the following in standard notation: **11a.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**a.** 6.32 x 106 **b.** 5.144 x 10-5 **c.** 34.9 x 104 **11b.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**11c.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**12.** Find the equation of the line that passes through the 2 points. Use algebra!!

(6, -1) (3, -7)

**12.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**13.** Harold has $40 in the bank. He puts another $10 in each week. Carol has $70 in the bank and she puts in $5 each week. Write the equations representing the amount of money in the bank (y) and the week (x).

Harold \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Carol\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graph the equations. Label what the x and y axes represent.

At what point do these two lines intersect? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What does it mean in real life? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_