**Chapter 5 & 6 Review Packet**

**Name:**  **Date:**

**Directions: Change the following equations from standard form to y=mx+b and find 5 terms of the given algebraic expression and graph them. (8 Points)**

|  |  |
| --- | --- |
|  x |  y |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1). 2(x) + (y) = -2

|  |  |
| --- | --- |
|  x |  y |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

2). 3(x) + 4(y) = 16

**Directions: Find the X-intercept and the Y-Intercept for the following equations. (4 points)**

3). 6(x) + 2(y) = 10 4). -13(x) + 5(y) = 130

**Directions: Find the slope for the following problems. Identify** $(x\_{1}, y\_{1})$ **and** $(x\_{2}, y\_{2})$**. (4 points)**

5). (-5, 3) and (-1, -4) 6). (15, 5) and (10, 1)

**Directions: Find an equation for each problem in the form of y = m(x) + b. (4 points)**

7). The slope is $\frac{4}{3}$ and (2,5) is on the line. 8). Passes through (4, 3) and (6, 9)

9).

**Directions: Find an equation for each problem in the form of** $y-y\_{1}=m(x-x\_{1})$**. (4 points)**

10). Slope is 5 and (-3, 4) is on the line. 11). (2, 5) and (6, 15) is on the line.

12). A candle burned at a steady rate. After 32 minutes, the candle was 11.2 inches tall. Eighteen minutes later, it was 10.75 inches tall. Use the equation $y-y\_{1}=m(x-x\_{1})$ to find an algebraic expression and the height of the candle after 2 hours.

**Directions: Convert the following problems into the standard form equation of A(x) + B(y) = C. (4 points)**

13). Slope is 3 and (1, 4) is on the line. 14). (6, 11) and (5, 9) is on the line.

**Directions: Compare the following problem functions. (8 points)**

15). An experiment compares the heights of two plants over time. A plant was 5 cm tall at the beginning of the experiment and grew 0.3 centimeters each day. The function ƒ (t) represents the height of the plant (in centimeters) after t days. The graph shows the height of the second plant, g (t) (in centimeters), as a function of time t (in days). Find the rate of change g(t) and compare it to the rate of change for ƒ (t).