

Name _____

Christmas Tree Project

For each problem below, write the equation of the line and graph it on the coordinate grid.
For each line, a domain or range value has been specified.

1. $m = 2, b = 20$ Domain: $-3 \leq x \leq 0$
Equation: _____

2. Horizontal line through $(0, 14)$ Domain: $-3 \leq x \leq 3$
Equation: _____

3. $m = \frac{3}{2}, (-2, 12)$ Domain: $-6 \leq x \leq 0$
Equation: _____

4. $m = 0, b = 6$ Domain: $-6 \leq x \leq 6$
Equation: _____

5. $(-1, 8) (-3, 6)$ Domain: $-8 \leq x \leq 0$
Equation: _____

6. $(-5, 1) (3, 1)$ Domain: $-8 \leq x \leq 8$
Equation: _____

7. $m = -1, b = 9$ Domain: $0 \leq x \leq 8$
Equation: _____

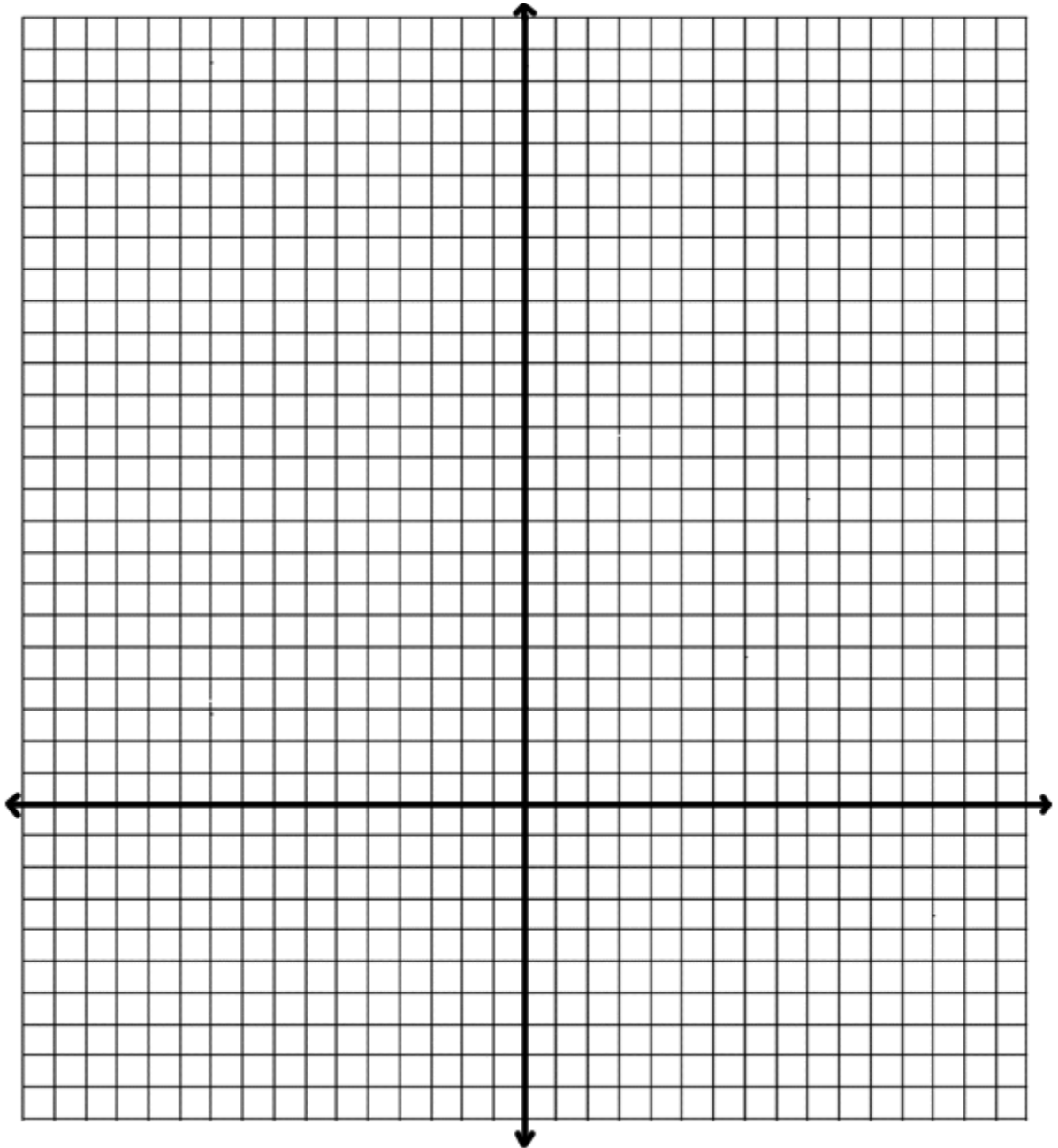
8. $(4, 9) (0, 15)$ Domain: $0 \leq x \leq 6$
Equation: _____

9. $m = -2, (1, 18)$ Domain: $0 \leq x \leq 3$
Equation: _____

10. Vertical line through $(-1, 0)$ Range: $-2 \leq x \leq 1$
Equation: _____

11. $m = \text{undefined}, (1, -1)$ Range: $-2 \leq x \leq 1$
Equation: _____

12. $m = 0, (0, -2)$ Domain: $-1 \leq x \leq 1$
Equation: _____



Christmas Tree Project Answers

For each problem below, write the equation of the line and graph it on the coordinate grid.
For each line, a domain or range value has been specified.

- $m = 2, b = 20$ Domain: $-3 \leq x \leq 0$
Equation: $y = 2x + 20$
- Horizontal line through $(0, 14)$ Domain: $-3 \leq x \leq 3$
Equation: $y = 14$
- $m = \frac{3}{2}, (-2, 12)$ Domain: $-6 \leq x \leq 0$
Equation: $y = \frac{3}{2}x + 15$
- $m = 0, b = 6$ Domain: $-6 \leq x \leq 6$
Equation: $y = 6$
- $(-1, 8) (-3, 6)$ Domain: $-8 \leq x \leq 0$
Equation: $y = x + 9$
- $(-5, 1) (3, 1)$ Domain: $-8 \leq x \leq 8$
Equation: $y = 1$
- $m = -1, b = 9$ Domain: $0 \leq x \leq 8$
Equation: $y = -x + 9$
- $(4, 9) (0, 15)$ Domain: $0 \leq x \leq 6$
Equation: $y = -\frac{3}{2}x + 15$
- $m = -2, (1, 18)$ Domain: $0 \leq x \leq 3$
Equation: $y = -2x + 20$
- Vertical line through $(-1, 0)$ Range: $-2 \leq x \leq 1$
Equation: $x = -1$
- $m = \text{undefined}, (1, -1)$ Range: $-2 \leq x \leq 1$
Equation: $x = 1$
- $m = 0, (0, -2)$ Domain: $-1 \leq x \leq 1$
Equation: $y = -2$

