

Classwork Linear Functions

Please work all problems on a separate sheet of paper.

In problems 1 – 4, find the slopes of the indicated lines

1. through $(1, 6)$ and $(9, -4)$

2. through $(4, 7)$ and $(4, -3)$

3. through $(5, 1)$ and $(-3, 1)$

4. $f(2) = 1$ and $f(-2) = 5$

In problems 5 – 6, find the equations of the following lines. Write the answers in slope-intercept form when possible. Also, graph the lines.

5. $m = \frac{1}{3}$ through $(3, -4)$

6. m undefined through $(-4, 3)$

In problems 7 – 8, find the equations of the lines passing through the given points. Write the answers in slope-intercept form when possible. Also, graph the lines.

7. $(5, 1)$ and $(-3, 1)$

8. $f(6) = -3$ and $f(-1) = 4$

In problems 9 – 10, find the equations of the lines passing through the given points parallel to the given lines. Write the answers in slope-intercept form when possible.

9. through $(-5, -4)$ parallel to $4x - 3y = -2$

10. through $(1, 6)$ parallel to $y = -2$

In problems 11 – 12, find the equations of the lines passing through the given points perpendicular to the given lines. Write the answers in slope-intercept form when possible.

11. through $(-5, -4)$ perpendicular to $4x - 3y = -2$

12. through $(1, 6)$ perpendicular to $y = -2$