

Algebra 1
Section 4.3 Worksheet

Name _____

Determine if the lines are parallel. Explain.

<p>1. Line a passes through $(-1, -2)$ and $(1, 0)$. Line b passes through $(0, 2)$ and $(-1, 1)$.</p>	<p>2. Line a passes through $(3, 8)$ and $(6, 10)$. Line b passes through $(-1, 3)$ and $(1, 9)$.</p>
<p>3. Line a: $2y = -3x + 6$ Line b: $y = \frac{3}{2}x - 5$</p>	<p>4. Line a: $6x + 3y = 15$ Line b: $-10x - 5y = 20$</p>

Determine if the lines are perpendicular. Explain.

<p>5. Line a passes through $(4, 1)$ and $(6, 4)$. Line b passes through $(1, 3)$ and $(4, 1)$.</p>	<p>6. Line a passes through $(-5, 1)$ and $(0, 3)$. Line b passes through $(-1, 2)$ and $(1, 9)$.</p>
<p>7. Line a: $3x + 4y = 4$ Line b: $y = \frac{4}{3}x + 2$</p>	<p>8. Line a: $y = 6x - 2$ Line b: $6y = -x$</p>

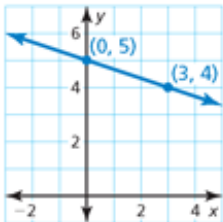
Write an equation of the line that passes through the given point and is parallel to the given line.

9. $(-1, 3)$; parallel to $y = 2x + 8$	10. $(-4, -1)$; parallel to $4y = 2x + 6$
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Write an equation of the line that passes through the given point and is perpendicular to the given line.

11. $(2, -3)$; perpendicular to $y = 2x + 8$	12. $(8, 6)$; perpendicular to $y = -\frac{2}{5}x + 11$
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Review

13. Write the equation in point-slope form of the line that passes through $(4, 5)$ and has a slope of -4 .	14. Write a linear function with the given values: $f(0) = 2$; $f(5) = -3$
15. Write an equation of the line in slope-intercept form. 	16. A website hosting company charges an initial fee of \$48 to set up a website. The company c charges \$44 per month to maintain the website. a. Write a linear model that represents the total cost of setting up and maintaining a website as a function of the number of months it is maintained. b. Find the total cost of setting up a website and maintaining it for 6 months.