

Name:

**13.10 Exit Quiz: Algebra review**

1. Solve for the value of  $x$ .

$$\frac{1}{3}(5x - 1) = 3$$

2. Given  $f(x) = \frac{2}{5}x - 4$ . Solve for  $x$  such that for  $f(x) = 2$ .

3. Given  $g(x) = 2x^2 - 7x + 4$ . Simplify  $g(0)$ .

4. Given  $h(x) = x^2 + 7x + 6$ . Solve  $h(x) = 0$ .

5. Simplify each expression. (Leave it in radical form if necessary, not a decimal.)

(a)  $\sqrt{18}$

(b)  $\sqrt{75}$

6. Find the slope of each linear equation.

(a)  $y = \frac{3}{2}x + 7$

(b)  $3x + 2y = 6$

7. Write an equation of the line that is parallel to the line whose equation is  $y = \frac{1}{3}x - 7$  and passes through the point  $(2, -1)$ .

8. Find the area of a circle with radius 5. Round to the *nearest tenth*. ( $A = \pi r^2$ )

9. The volume of a sphere is given by  $V = \frac{4}{3}\pi r^3$ . If the volume is 1595, find the radius to the *nearest hundredth*.