

## MANIPULATING EQUATIONS PRACTICE

Solve each equation for x.

1.  $a = bx$

2.  $a = \frac{b}{x}$

3.  $a^2 = \frac{b}{x}$

4.  $a = \frac{b}{x^2}$

5.  $a = \frac{b+x}{3}$

6.  $a = \frac{1}{2}bx$

7.  $\frac{a}{2} = 3bx$

8.  $a = bx^2$

9.  $a = bxc$

10.  $\frac{xa}{b} = \frac{c}{d}$

11.  $a = bx + c$

12.  $a - b = \frac{c-x}{d}$

13.  $\frac{a-1}{b} = \frac{d}{x}$

14.  $ax + bx = c$

15.  $a = \frac{3x+7}{b}$

16.  $a + 3 = bx + cx$

17.  $a = x - bxc$

18.  $ax + 4 = \frac{bx+5}{c}$

19.  $\frac{1(x-a)}{2} = 5xb$

20.  $ab = \frac{c}{x+1}$

21.  $ax^2 + 7 = b$

22.  $abx + cbx = 5$

23.  $ab = \frac{x^2c}{b}$

24.  $ac = \sqrt{x} - 1$

25.  $ab = \frac{cd+1}{3x^2}$

26.  $x\pi r^2 + 2\pi x = a$

27.  $\frac{ab}{cd} = \frac{ef}{xg}$

28.  $a = xb + \frac{1}{2}bc^2$

29.  $\frac{3c}{d} = \frac{x}{4b} + a$

30.  $a = \left(\frac{2}{3}\right)\frac{c-b}{b-x}$