

Name \_\_\_\_\_

Algebra 1

Practice 3.1

Solve each equation.

11)  $\frac{3}{2} + \frac{3n}{2} = 3$   
 $\frac{3}{2} + \frac{3n}{2} = 3$   
 $\frac{3n}{2} = 3 - \frac{3}{2}$   
 $\frac{3n}{2} = \frac{6}{2} - \frac{3}{2}$   
 $\frac{3n}{2} = \frac{3}{2}$   
 $3n = 3$   
 $n = 1$

12)  $\frac{36}{7} + \frac{9}{14} = \frac{14}{14} + n$   
 $\frac{36}{7} + \frac{9}{14} = \frac{14}{14} + n$   
 $\frac{72}{14} + \frac{9}{14} = \frac{14}{14} + n$   
 $\frac{81}{14} = \frac{14}{14} + n$   
 $\frac{81}{14} - \frac{14}{14} = n$   
 $\frac{67}{14} = n$

13)  $\frac{7}{4}x = -\frac{1}{3}$   
 $\frac{7}{4}x = -\frac{1}{3}$   
 $x = -\frac{1}{3} \cdot \frac{4}{7}$   
 $x = -\frac{4}{21}$

14)  $\frac{9}{5} + n = \frac{4}{5}$   
 $\frac{9}{5} + n = \frac{4}{5}$   
 $n = \frac{4}{5} - \frac{9}{5}$   
 $n = -\frac{5}{5}$   
 $n = -1$

15)  $\frac{76}{35} = k + \frac{3}{10}$   
 $\frac{76}{35} = k + \frac{3}{10}$   
 $\frac{76}{35} - \frac{3}{10} = k$   
 $\frac{152}{70} - \frac{21}{70} = k$   
 $\frac{131}{70} = k$

16)  $25.6 = r + 14.1$   
 $25.6 = r + 14.1$   
 $25.6 - 14.1 = r$   
 $11.5 = r$

17)  $5n = \frac{78.5}{5}$   
 $5n = \frac{78.5}{5}$   
 $n = \frac{78.5}{5 \cdot 5}$   
 $n = \frac{78.5}{25}$   
 $n = 3.14$

1)  $10x = \frac{150}{10}$   
 $10x = \frac{150}{10}$   
 $x = \frac{150}{10 \cdot 10}$   
 $x = \frac{150}{100}$   
 $x = 1.5$

2)  $9 = \frac{n}{3} \cdot 3$   
 $9 = \frac{n}{3} \cdot 3$   
 $9 = n$

3)  $\frac{4}{3} \cdot \frac{a}{4} = \frac{15}{4} \cdot 4$   
 $\frac{4}{3} \cdot \frac{a}{4} = \frac{15}{4} \cdot 4$   
 $\frac{4a}{12} = 15$   
 $\frac{a}{3} = 15$   
 $a = 15 \cdot 3$   
 $a = 45$

4)  $8 + x = 9$   
 $8 + x = 9$   
 $x = 9 - 8$   
 $x = 1$

5)  $0 = \frac{10 + b}{-10} - 10$   
 $0 = \frac{10 + b}{-10} - 10$   
 $10 = \frac{10 + b}{-10}$   
 $10 \cdot (-10) = 10 + b$   
 $-100 = 10 + b$   
 $-100 - 10 = b$   
 $-110 = b$

6)  $0 = \frac{10 + b}{-10} - 10$   
 $0 = \frac{10 + b}{-10} - 10$   
 $10 = \frac{10 + b}{-10}$   
 $10 \cdot (-10) = 10 + b$   
 $-100 = 10 + b$   
 $-100 - 10 = b$   
 $-110 = b$

7)  $v - 11 = 7$   
 $v - 11 = 7$   
 $v = 7 + 11$   
 $v = 18$

8)  $\frac{-4}{-2} = \frac{-2n}{-2}$   
 $\frac{-4}{-2} = \frac{-2n}{-2}$   
 $2 = n$

9)  $\frac{-n}{-1} = \frac{-33}{-1}$   
 $\frac{-n}{-1} = \frac{-33}{-1}$   
 $n = 33$

10)  $-14a = 154$   
 $-14a = 154$   
 $a = \frac{154}{-14}$   
 $a = -11$

11)  $-7.8 = n - 2.6$   
 $-7.8 = n - 2.6$   
 $-7.8 + 2.6 = n$   
 $-5.2 = n$