Simplifying and Solving Equations (I)

Name: _____ Date: _____

Determine the value of the unknown in each equation.

1. $-1 = -7(t + 1) - 1 + 6t$
2. $-7 - 6g = -5 - 4g$
3. $5(x - 1) + x - 8 = -x$
4. $-8 = -2(1 + 4r) - r$
5. $3(1 - 3v) = 2(2 + 3v)$
6. $4(1 - b) + 3 = 9 + 8b$
7. $-6(1 + m) = -3 - 4m$
8. $-1 + d = 7d - 1 + d$
9. $-2 + 8k = -3 + 2k$
10. $-2(3 - 4w) + 3w = 3w$
11. $7(c - 1) - 2 = -c - 7$
12. $-1 = 5(1 + h) + 3 + 4h$
13. $-4 + 6a = 2 - 7a$
14. $-4(1 + 2f) - f - 6 = -f$
15. $-7 - 3y = -5y + 8$
16. $-3 + 8q = 2(3q - 1)$
17. $-2(1 + 4n) - n = -5n + 2$
18. $3s + 7 = -2(s - 3)$
19. $-1 + 2p = -1 - 9p$
20. $6 - 4z = -6z + 7$

Simplifying and Solving Equations (I) Answers

Name: _____ Date: _____

Determine the value of the unknown in each equation.

1. $-1 = -7(t+1) - 1 + 6t$
   $t = -7$

2. $-7 - 6g = -5 - 4g$
   $g = -1$

3. $5(x-1) + x - 8 = -x$
   $x = 1\frac{6}{7}$

4. $-8 = -2(1+4r) - r$
   $r = \frac{2}{3}$

5. $3(1-3v) = 2(2+3v)$
   $v = -\frac{1}{15}$

6. $4(1-b) + 3 = 9 + 8b$
   $b = -\frac{1}{6}$

7. $-6(1+m) = -3 - 4m$
   $m = -1\frac{1}{2}$

8. $-1 + d = 7d - 1 + d$
   $d = 0$

9. $-2 + 8k = -3 + 2k$
   $k = -\frac{1}{6}$

10. $-2(3-4w) + 3w = 3w$
    $w = \frac{3}{4}$

11. $7(c-1) - 2 = -c - 7$
    $c = \frac{1}{4}$

12. $-1 = 5(1+h) + 3 + 4h$
    $h = -1$

13. $-4 + 6a = 2 - 7a$
    $a = \frac{6}{13}$

14. $-4(1+2f) - f - 6 = -f$
    $f = -1\frac{1}{4}$

15. $-7 - 3y = -5y + 8$
    $y = 7\frac{1}{2}$

16. $-3 + 8q = 2(3q-1)$
    $q = \frac{1}{2}$

17. $-2(1+4n) - n = -5n + 2$
    $n = -1$

18. $3s + 7 = -2(s-3)$
    $s = -\frac{1}{5}$

19. $-1 + 2p = -1 - 9p$
    $p = 0$

20. $6 - 4z = -6z + 7$
    $z = \frac{1}{2}$