4.1 – Solve Simple Equations Worksheet #2

MPM1D

Jensen

1. Solve

a) $x - 5 = 4$

b) $m + 8 = 11$

c) $y - 3 = 0$

d) $h + 2 = 6$

2. Solve

a) $x + 5 = 12$

b) $x - 6 = 7$

c) $y + 3 = 10$

d) $y - 4 = 2$

3. Solve

a) $x + 7 = 12$

b) $n - 8 = 11$

c) $-5 + y = -2$

d) $-9 + h = -6$

4. Solve

a) $3x = 12$

b) $5y = 20$

c) $\frac{n}{3} = 8$

d) $-2k = 16$

5. Solve

a) $4z = -24$

b) $\frac{h}{-5} = -6$

c) $-6c = -42$

d) $-9u = 45$

6. Find the root of each equation

a) $7x - 4 = 10$

b) $7k + 2 = 16$

c) $-p + 7 = 0$

d) $-12g - 33 = 0$

7. Solve

a) $k - 4 = -9$

b) $6x = -30$

c) $\frac{q}{7} = 2$

d) $2y - 7 = 9$

e) $-3w - 1 = 14$

f) $2q - 9 = -13$

8. Solve

a) $p + 9 = -2$

b) $-5x = 35$

c) $\frac{u}{4} = -8$

d) $6r + 3 = 33$

e) $10c - 6 = -16$

f) $-3v + 6 = -9$

9. At a bake sale, pies cost $7 each. One customer buys $84 worth of pies

a) Write an equation to model the number of pies the customer bought.

b) Solve the equation.

12. Solve each equation. Express fraction answers in lowest terms.

a) $2k - 7 = -8$

b) $3x + 8 = 2$

c) $4m - 6 = 12$

d) $-9u + 8 = 23$

13. Solve each equation. Express fraction answers in lowest terms.

a) $8r - \frac{3}{2} = -15$

b) $-10h - 6 = -\frac{2}{5}$

Answers:

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1. **a)** $x = 9$ **b)** $m = 3$ **c)** $y = 3$ **d)** $h = 4$
2. **a)** $x = 7$ **b)** $x = 13$ **c)** $y = 7$ **d)** $y = 6$
3. **a)** $x = 5$ **b)** $n = 19$ **c)** $y = 3$ **d)** $h = 3$
4. **a)** $x = 4$ **b)** $y = 4$ **c)** $n = 24$ **d)** $k = -8$
5. **a)** $z = -6$ **b)** $h = 30$ **c)** $c = 7$ **d)** $u = -5$

6. **a)** $x = 2$ **b)** $k = 2$ **c)** $p = 7$ **d)** $g = -\dfrac{11}{4}$

7. **a)** $k = -5$ **b)** $x = -5$ **c)** $q = 14$
   d) $y = 8$ **e)** $w = -5$ **f)** $q = -2$
8. **a)** $p = -11$ **b)** $x = -7$ **c)** $u = -32$
   d) $r = 5$ **e)** $c = -1$ **f)** $v = 5$
9. The variable used may vary.
   a) $7p = 84$ **b)** 12 pies
10. The variable used may vary.
    a) $50j = 700$ **b)** 14 jerseys
11.

Step	Explanation
$3x - 8 = 7$	Given equation
$3x - 8 + 8 = 7 + 8$	Add 8 to both sides.
$3x = 15$	Simplify by adding integers.
$\dfrac{3x}{3} = \dfrac{15}{3}$	Divide both sides by 3.
$x = 5$	Divide integers to give the solution for x.

12. **a)** $k = -\dfrac{1}{2}$ **b)** $x = -2$ **c)** $m = \dfrac{9}{2}$ **d)** $u = -\dfrac{5}{3}$

13. **a)** $r = -\dfrac{27}{16}$ **b)** $h = -\dfrac{14}{25}$