

Worksheet 6

Solve the following equations.

1. $-31 = -4(9b + 8)$

$$-31 = -36b - 32$$

$$-31 + 32 = -36b - 32 + 32$$

$$1 = -36b$$

$$-36b = -36b$$

$$b = \frac{-1}{-36}$$

$$b = \frac{1}{36}$$

2. $2y - 7y = -27$

$$-5y = -27$$

$$-5y = -27$$

$$y = \frac{27}{5}$$

$$y = 5\frac{2}{5}$$

3. $-5c - 7 - 8 = -18$

$$-5c - 15 = -18$$

$$-5c - 15 + 15 = -18 + 15$$

$$-5c = -3$$

$$-5c = -3$$

$$c = \frac{3}{5}$$

4. $-29 = 8h - 5h$

$$-29 = 3h$$

$$3h = -29$$

$$h = \frac{-29}{3}$$

$$h = -9\frac{2}{3}$$

5. $29 = -7 + 2(d+3)$

$29 = -7 + 2d + 6$ ✓

$29 = -7 + 6 + 2d$

$29 = -1 + 2d$ ✓

$29 + 1 = -1 + 1 + 2d$ ✓

$30 = 2d$

$2 \quad 2$

$d = 15$ ✓

9. $-28 + 42 = 5(32 - 7)$

$-28 + 42 = 152 - 35$

$-28 + 28 + 42 = 152 - 35 + 28$

$42 = 152 - 74 = 78$

$42 - 152 = 152 - 152 - 7$

$-110 = -7$

$-110 \div -11 = 10$

$2 = \frac{7}{4}$ ✓

6. $9(4a - 8) = -30 + 6a$

$36a - 72 = -30 + 6a$

$36a - 72 + 72 = -30 + 6a + 72$

$36a = -30 + 72 + 6a$

$36a = 42 + 6a$

$36a - 6a = 42 + 6a - 6a$

$30a = 42$

$30 \quad 30$

$a = \frac{2}{5}$ ✓

10. $8b = 2(2b - 3) + 5b + 4$

$8b = 4b - 6 + 5b + 4$ ✓

$8b = 4b + 5b - 6 + 4$

$8b = 9b - 2$ ✓

$8b - 9b = 9b - 9b - 2$ ✓

$-b = -2$

$-1 \quad -1$

$b = 2$ ✓

7. $-5(2 - 8v) = 30$

$-10 + 40v = 30$ ✓

$-10 + 10 + 40v = 30 + 10$ ✓

$40v = 40$

$40 \quad 40$ ✓

$v = 1$ ✓

8. $9 - 4(1 + 7k) = 16$

$9 - 4 + 28k = 16$ ✓

$5 - 28k = 16$ ✓

$5 - 5 - 28k = 16 - 5$

$-28k = 11$ ✓

$-28 \quad -28$

$k = \frac{-11}{28}$ ✓

Good.
Do not use pencil!

28/11/19