

1. Simplify:

(a) $13 + 6 \times p$

(b) $5(8a + 3)$

(c) $-3(4g - 7)$

2. Simplify:

(a) $5x + 18x$

(b) $101a + 121a - 205a$

(c) $63pt - 4p + 11p - 2t$

(d) $17g^2h + 10gh^2 - 72g^2h + 5h^2$

(e) $6xy - 4yx + 12$

(f) $26a - 38b + 13c - 11a - 41b + 18c - 25b - 2a - 3c$

3. Expand and simplify:

(a) $2 + 4(a + 3)$

(b) $5m - (m + 8)$

(c) $3(x + 4) + 2(x - 1)$

(d) $2(a - 7) - 3(a - 9)$

(e) $-(x + 1) - 4(x - 1)$

4. Solve the following equations:

(a) $4p + 6 = 37$

(b) $2x + 11 = 6x + 3$

(c) $3a + 4 = 9 - 2a$

5. Solve:

(a) $4x - 5 = 7$

(b) $\frac{2x}{3} - 1 = 5$

(c) $\frac{5 - w}{2} = 6$

(d) $p - 0.88 = 1$

(e) $2x + 456 = 9078$

6. Solve:

(a) $5(3w - 5) = 35$

(b) $-7(3 + s) = -28$

(c) $3x + 2(x + 1) = 12$

(d) $x - 3(4 - x) = -8$

(e) $5(2w + 1) - 2(1 - w) = -2$

7. A rectangle is 6 cm longer than it is wide. Find its dimensions if its perimeter is 64 cm.

A bank teller notices that he has 50 coins all of which are 5c or 10c pieces. He finds that the value of coins is \$4.20. How many of each must he have?

$$1 \text{ a) } 13 + 6xp \checkmark \\ = 13 + 6p \checkmark$$

$$\text{b) } 40a + 15 \checkmark$$

$$\text{c) } -12x + 21 \checkmark$$

$$2 \text{ a) } 23x \checkmark$$

$$\text{b) } 222a - 205a \\ = 17a \checkmark$$

$$\text{c) } 63pt + 5p + t$$

$$~~63pt + 5p + t~~$$

$$63pt + 5p + 2t \times$$

$$\text{d) } -55gh + 10gh^2 + 5h^2 \checkmark$$

$$\text{e) } 2xy + 12 \checkmark$$

$$\text{f) } 26a - 11a + 52a = 67a$$

$$+ 38b - 41b - 25b = -28b$$

$$+ 13c + 18c - 3c = 28c$$

$$= 67a - 28b + 28c \checkmark$$

Next page.

$$3 \text{ a) } 2 + 4a + 12 \\ = 14 + 4a \checkmark$$

$$\text{b) } 5m - m + 8$$

$$= 4m + 8 \checkmark$$

$$\text{c) } 3x + 12 + 2x + 12$$

$$3x + 10 + 2x$$

$$= 5x + 10 \checkmark$$

$$\text{d) } 2a - 14 - 3a + 27$$

$$= -a + 13 \checkmark$$

$$\text{e) } -x + -1 - 4x + 4$$

$$= -5x + 3 \checkmark$$

$$4 \text{ a) } 4p + 6 = 37$$

$$= 4p = 31$$

$$= p = \frac{31}{4} \text{ or } p = 7\frac{3}{4} \checkmark \checkmark$$

$$\text{b) } 2x + 11 = 6x + 3$$

$$2x + 8 = 6x$$

$$8 = 4x$$

$$4x = 8$$

$$x = 2 \checkmark \checkmark$$

$$\text{c) } 3a + 4 = 9 - 2a$$

$$3a = 5 - 2a$$

$$5a = 5$$

$$a = 1 \checkmark \checkmark$$

Next page

Pg 3

5 a) $4x - 5 = 7$

$4x = 12$

$x = 3$ ✓✓

b) $\frac{2x}{3} - 1 = 5$

$2x - 3 = 15$

$2x = 18$

$x = 9$ ✓✓

c) $\frac{5-w}{2} = 6$

$2 \times \frac{5-w}{2} = 6 \times 2$

$5-w = 12$

$-w = 7$

$7 = -w$ ✓X

d) $p - 0.88 = 1$

$p = 1.88$ ✓✓

e) $2x + 456 = 9078$

$2x = 8622$

$x = 4311$

✓ ECF

Abak na etc.

9078+

456

9534

4767

2 | 9534

Pg 4

6a) $15w - 25 = 35$

$15w = 60$

$w = 4$ ✓✓

b) $-21 - 7s = -28$

$-7s = -7$

$s = 1$

$s = 1$ ✓✓

c) $3x + 2x + 2 = 12$

$5x = 10$

$x = 2$ ✓✓

d) $x - 12 + 3x = -8$

$x + 3x = 4$

$4x = 4$

$x = 1$ ✓✓

e) $10w + 5 - 2 + 2w = -2$ ✓

$10w + 5 + 2w = 0$

$10w + 2w = -5$

$12w = -5$

$6w = -2.5$

$6w = -1.25$

$w = ?$

X

7)

~~12 * 6 = 72~~
~~15 * 5 = 75~~
~~18 * 4 = 72~~
~~21 * 3 = 63~~
~~24 * 3 = 72~~
~~27 * 3 = 81~~
~~30 * 2.5 = 75~~

~~15 * 8 = 120~~
~~18 * 8 = 144~~
~~21 * 8 = 168~~
~~24 * 8 = 192~~
~~27 * 8 = 216~~
~~30 * 8 = 240~~
~~33 * 8 = 264~~
~~36 * 8 = 288~~
~~39 * 8 = 312~~
~~42 * 8 = 336~~
~~45 * 8 = 360~~
~~48 * 8 = 384~~
~~51 * 8 = 408~~
~~54 * 8 = 432~~
~~57 * 8 = 456~~
~~60 * 8 = 480~~

Therefore, The rectangle is 19 cm ^{long} ~~wide~~ and 13 cm ~~long~~ ^{wide}.

~~18 * 10 = 180~~
~~18 * 12 = 216~~
~~19 * 13 = 247~~

19 cm long
 13 cm wide ✓

19x
 13

 247

Area = 232 cm²

8)

~~20 * 3 = 60~~
~~30 * 10 = 300~~
~~12 * 5 = 60~~
~~38 * 10 = 380~~

~~4 * 5 = 20~~
~~56 * 10 = 560~~

The bank teller has
~~20~~ 16 five cent coins
 and 34 Ten cent coins.

~~12 * 5 = 60~~
~~36 * 10 = 360~~
~~24 * 5 = 120~~
~~28 * 10 = 280~~

16 * 5 = 80
 34 * 10 = 340
~~28 * 10 = 280~~
~~36 * 10 = 360~~

80
 340

 420

~~12 * 5 = 60~~
~~38 * 10 = 380~~

~~22 * 5 = 110~~
~~26 * 10 = 260~~