

Corrigé Exercice 13

- a. On cherche $y = 1$ on trouve $x = 2 \Rightarrow S = \{2\}$
 c. On cherche $y = -3$ on trouve $x = 2 \Rightarrow S = \{2\}$
 e. On cherche $y = 3$ on trouve $x = 0 \Rightarrow S = \{0\}$

- b. On cherche $y = 2$ on trouve $x = 1,5 \Rightarrow S = \{1, 5\}$
 d. On cherche $y = 3$ on trouve $x = 1 \Rightarrow S = \{1\}$
 f. On cherche $y = -8$ on trouve $x \simeq -6 \Rightarrow S = \{-6\}$

Corrigé Exercice 14

- a. On cherche $y = 2$ on trouve 2 points : pour $x = 0$ et pour $x = 3 \Rightarrow S = \{0; 3\}$
 b. On cherche $y = 1$ on trouve 3 points : pour $x = -1; x = 0$ et $x = 3 \Rightarrow S = \{-1; 0; 3\}$
 c. On cherche $y = 2$ mais on ne trouve aucun point $\Rightarrow S = \emptyset$

Corrigé Exercice 15 :

1) a) $3x = -9$ $x = -\frac{9}{3} = -3$ $S = \{-3\}$	b) $-2a = 5$ $a = \frac{5}{-2} = -2,5$ $S = \{-2, 5\}$	c) $x + 5 = 7$ $x = 7 - 5 = 2$ $S = \{2\}$	d) $y - 4 = 1$ $y = 1 + 4 = 5$ $S = \{5\}$	e) $6 - x = -2$ $6 + 2 = x$ $8 = x$ $S = \{8\}$
f) $0,25x = 5$ $x = \frac{5}{0,25} = 20$ $S = \{20\}$	g) $-1,2x = 6$ $x = \frac{6}{-1,2} = -5$ $S = \{-5\}$	h) $x - 7 = 0$ $x = 7$ $S = \{7\}$	i) $3 - m = 8$ $3 - 8 = m$ $-5 = m$ $S = \{-5\}$	j) $4x = 0$ $x = \frac{0}{4} = 0$ $S = \{0\}$
k) $x - 4 = 0$ $x = 4$ $S = \{4\}$	l) $2x = 8$ $x = \frac{8}{2} = 4$ $S = \{4\}$	m) $x + 7 = 0$ $x = -7$ $S = \{-7\}$	n) $1,5x = 0$ $x = \frac{0}{1,5} = 0$ $S = \{0\}$	p) $3 - x = 0$ $3 = x$ $S = \{3\}$

2) a) $2x - 4 = 16$ $2x = 16 + 4 = 20$ $x = \frac{20}{2} = 10$ $S = \{2\}$	b) $-3n + 1 = 2$ $-3n = 2 - 1 = 1$ $n = \frac{1}{-3}$ $S = \{-\frac{1}{3}\}$	c) $5x + 2 = 0$ $5x = -2$ $x = -\frac{2}{5} = -0,4$ $S = \{-0, 4\}$	d) $1 - 3x = 1$ $-3x = 1 - 1 = 0$ $x = \frac{0}{-3} = 0$ $S = \{0\}$	e) $6y - 3 = 0$ $6y = 3$ $y = \frac{3}{6} = 0,5$ $S = \{0, 5\}$
f) $0,5x - 10 = -4$ $0,5x = -4 + 10 = 6$ $x = \frac{6}{0,5} = 12$ $S = \{12\}$	g) $5 = 6 - 2a$ $2a = 6 - 5 = 1$ $a = \frac{1}{2} = 0,5$ $S = \{0, 5\}$	h) $1 + 4x = -5$ $4x = -5 - 1 = -6$ $x = -\frac{6}{4} = -1,5$ $S = \{-1, 5\}$	i) $7 - 7x = 0$ $7x = 7$ $x = \frac{7}{7} = 1$ $S = \{1\}$	j) $-0,3x + 1 = 1$ $-0,3x = 1 - 1 = 0$ $x = \frac{0}{-0,3} = 0$ $S = \{0\}$
k) $2x - 4 = 0$ $2x = 4$ $x = \frac{4}{2} = 2$ $S = \{2\}$	l) $0,2x + 1 = 0$ $0,2x = -1$ $x = -\frac{1}{0,2} = -5$ $S = \{-5\}$	m) $7 - 2x = 0$ $2x = 7$ $x = \frac{7}{2} = 3,5$ $S = \{3, 5\}$	n) $1,5x + 3 = 0,6$ $1,5x = 0,6 - 3 = -2,4$ $x = -\frac{2,4}{1,5} = -1,6$ $S = \{-1, 6\}$	p) $3x - 6 = 0$ $3x = 6$ $x = \frac{6}{3} = 2$ $S = \{2\}$

Corrigé Exercice 16

a) $2x - 6 = 5x + 3$

$$2x - 5x = 6 + 3$$

$$-3x = 9$$

$$x = \frac{9}{-3} = -3$$

$$S = \{2\}$$

b) $4x + 1 = -3x$

$$4x + 3x = -1$$

$$7x = -1$$

$$x = -\frac{1}{7}$$

$$S = \left\{-\frac{1}{7}\right\}$$

c) $8m - 5 = 3m - 3$

$$8m - 3m = -3 + 5$$

$$5m = 2$$

$$m = \frac{2}{5} = 0,4$$

$$S = \{0,4\}$$

d) $2x - 5 = x + 7$

$$2x - x = 7 + 5$$

$$x = 12$$

$$S = \{12\}$$

e) $5 - 7x = x + 13$

$$-7x - x = 13 - 5$$

$$-8x = 8$$

$$x = \frac{8}{-8} = 1$$

$$S = \{1\}$$

f) $a + 5 = 11 - 2a$

$$a + 2a = 11 - 5$$

$$3a = 6$$

$$a = \frac{6}{3} = 2$$

$$S = \{2\}$$

i) $5 + 7x = 2x + 5$

$$7x - 2x = 5 - 5$$

$$5x = 0$$

$$x = \frac{0}{5} = 0$$

$$S = \{0\}$$

j) $0,5x + 2 = 4 - 0,5x$

$$0,5x + 0,5x = 4 - 2$$

$$x = 2$$

$$S = \{2\}$$

Corrigé Exercice 17

1) a. $f(x) = 5 \Leftrightarrow x - 7 = 5 \Leftrightarrow x = 5 + 7 = 12$ donc $S = \{12\}$

b. $g(x) = -1 \Leftrightarrow 2x + 3 = -1 \Leftrightarrow 2x = -1 - 3 = -4 \Leftrightarrow x = -\frac{4}{2} = -2$ donc $S = \{-2\}$

c. $h(x) = 0 \Leftrightarrow 1,5 - 0,2x = 0 \Leftrightarrow 0,2x = 1,5 \Leftrightarrow x = \frac{1,5}{0,2} = 7,5$ donc $S = \{7,5\}$

2) a. $R(x) = 150x$

b. $R(x) = 1\,050 \Leftrightarrow 150x = 1\,050 \Leftrightarrow x = \frac{1\,050}{150} = 7 \Rightarrow$ Il a vendu 7 meubles

3) $P(n) = 14,5 \Leftrightarrow 12 + 0,5n = 14,5 \Leftrightarrow 0,5n = 14,5 - 12 = 2,5 \Leftrightarrow n = \frac{2,5}{0,5} = 5$ et $2012 + 5 = 2017$

Ce sera en 2017

4) a. $R(x) = 60x$

b. $R(x) = 210 \Leftrightarrow 60x = 210 \Leftrightarrow x = \frac{210}{60} = 3,5$ C'est pour 3,5 tonnes vendues