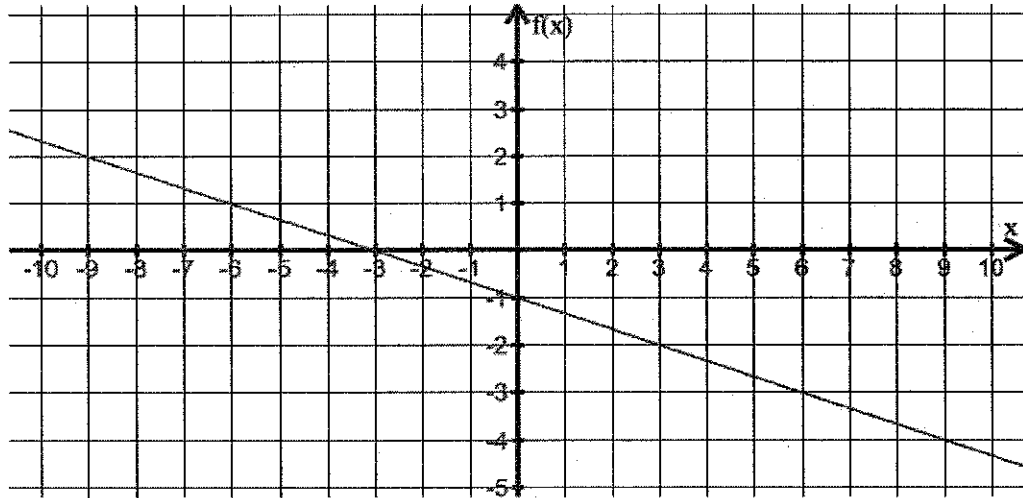
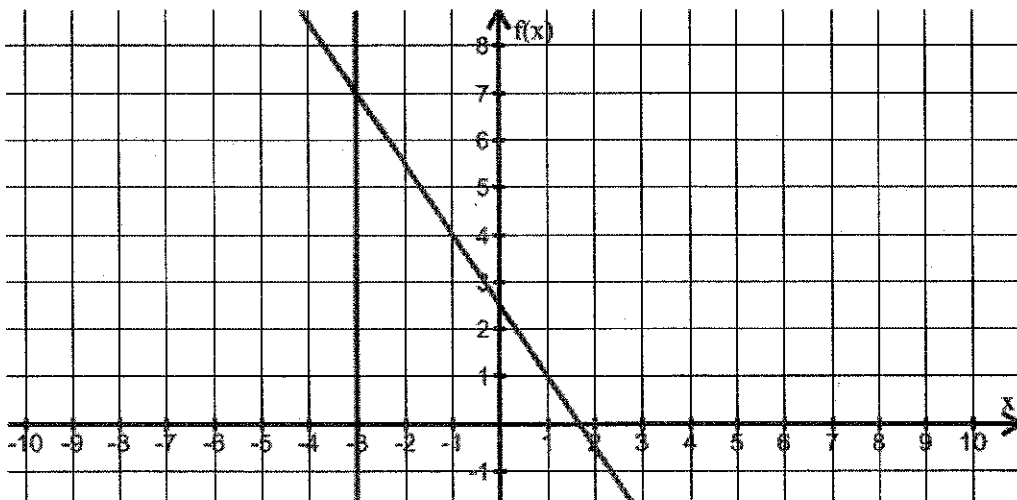


Corrigé Feuille de travail 1

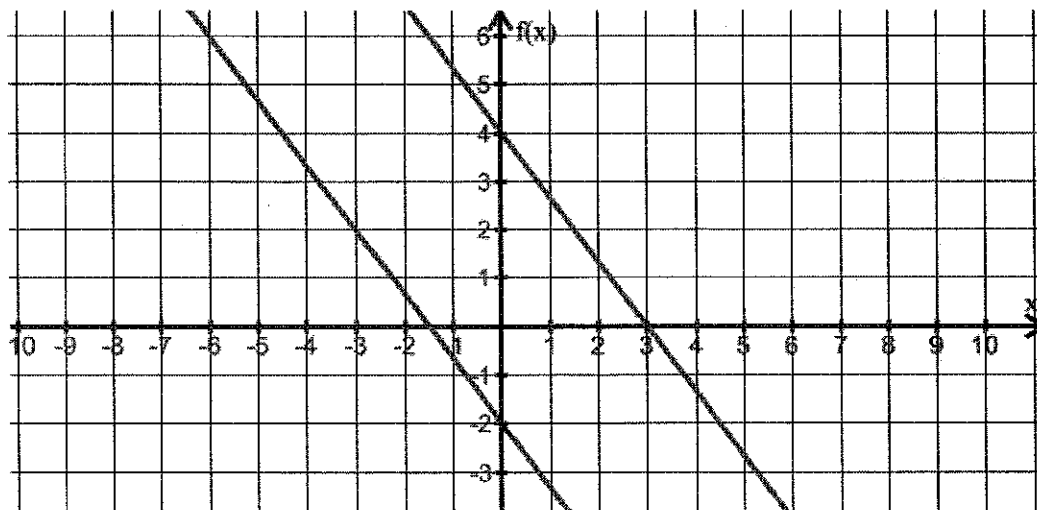
1. a)



b)



c)



2.

$$\begin{aligned} a) x - 5 + 2y \\ 2x - 3y = 6 \end{aligned}$$

$$\begin{aligned} 2(5 + 2y) - 3y &= 6 \\ 10 + 4y - 3y &= 6 \\ 10 + y &= 6 \\ y &= -4 \end{aligned}$$

$$\begin{aligned} x - 5 + 2(-4) \\ x - 5 - 8 \\ x &= -13 \end{aligned}$$

$$\boxed{(-13, -4)}$$

$$\begin{aligned} b) 3a - 7b - 13 = 0 \\ 4a - 5b - 13 = 0 \end{aligned}$$

$$\begin{aligned} -12a - 28b - 52 = 0 \\ 12a - 15b - 39 = 0 \\ \hline 0 + 13b - 13 = 0 \end{aligned}$$

$$\begin{aligned} -13b &= 13 \\ -13 &-13 \\ b &= -1 \end{aligned}$$

$$\boxed{(2, -1)}$$

$$\begin{aligned} 3a - 7(-1) - 13 &= 0 \\ 3a + 7 - 13 &= 0 \\ 3a - 6 &= 0 \end{aligned}$$

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

$$a = 2$$

$$\begin{aligned} c) 6x - 5y = -3 \\ 2y - 9x = -1 \end{aligned}$$

$$\begin{aligned} 6x - 5y &= -3 \\ -9x + 2y &= -1 \\ + 12x - 10y &= -6 \\ \hline -45x + 10y &= -5 \\ -33x &= -11 \\ -33 &-33 \end{aligned}$$

$$\boxed{(1/3, 1)}$$

$$x = 1/3$$

$$\begin{aligned} 6(1/3) - 5y &= -3 \\ 2 - 5y &= -3 \\ \frac{2}{3} - 5y &= -3 \\ 2 - 5y &= -3 \\ -5y &= -5 \\ \frac{-5y}{-5} &= \frac{-5}{-5} \end{aligned}$$

$$y = 1$$

$$\begin{aligned} d) x - y = 1 \\ 3x + y = 11 \end{aligned}$$

$$x = 1 + y$$

$$\begin{aligned} 3(1 + y) + y &= 11 \\ 3 + 3y + y &= 11 \\ 3 + 4y &= 11 \\ 4y &= 8 \\ 4 &4 \end{aligned}$$

$$y = 2$$

$$\begin{aligned} x &= 1 + 2 \\ x &= 3 \end{aligned}$$

$$\boxed{(3, 2)}$$

$$e) 3a + 4b = 15$$

$$a = 5 - b$$

$$3(5 - b) + 4b = 15$$

$$15 - 3b + 4b = 15$$

$$15 + b = 15$$

$$b = 0$$

$$a = 5 - 0$$

$$a = 5$$

$$\boxed{(5, 0)}$$

$$f) 4x - 6y = 5$$

$$8x - 10 = 12y$$

$$8x = 12y + 10$$

$$8x - 12y = 10$$

$$4x - 6y = 5$$

$$8x - 12y = 10$$

$$8x - 12y = 10$$

$$8x - 12y = 10$$

$$0 = 0$$

\Rightarrow infinite solutions

$$g) 5 = 2y - x$$

$$7 = 3y - 2x$$

$$-10 = 4y - 2x$$

$$-7 = 3y - 2x$$

$$\hline 3 = y$$

$$5 = 2(3) - x$$

$$5 = 6 - x$$

$$-1 = -x$$

$$\hline 1 = x$$

$$x = 1$$

$$\boxed{(1, 3)}$$

$$h) 4x + 3y = 15$$

$$8x - 9y = 15$$

$$-8x + 6y = 30$$

$$8x - 9y = 15$$

$$\hline 15y = 15$$

$$\frac{15}{15} = \frac{15}{15}$$

$$4x + 3(1) = 15$$

$$4x + 3 = 15$$

$$4x = 12$$

$$\frac{4}{4} = \frac{12}{4}$$

$$x = 3$$

$$y = 1$$

$$\boxed{(3, 1)}$$

$$I) 3r + 2t = 5$$

$$9r + 6t = 7$$

$$-9r + 6t = 15$$

$$-9r + 6t = 7$$

$$\hline 0 = 7$$

Aucune solution.

$$3. a) y = ax^2 + k; (-3, 11), (4, 18)$$

$$11 = a(-3)^2 + k$$

$$(11 = 9a + k) \times -1$$

$$18 = a(4)^2 + k$$

$$18 = 16a + k$$

$$\underline{-11 = -9a - k}$$

$$7 = 7a$$

$$a = 1$$

$$11 = 9(1) + k$$

$$k = 2$$

$$\boxed{y = x^2 + 2}$$

$$b) y = ax^2 + k \quad (-4, -4), (2, 2)$$

$$-4 = a(-4)^2 + k$$

$$-4 = 16a + k$$

$$\underline{-2 = -4a - k}$$

$$-6 = 12a$$

$$a = -1/2$$

$$2 = a(2)^2 + k$$

$$(2 = 4a + k) \times -1$$

$$2 = 4(-1/2) + k$$

$$k = 4$$

$$\boxed{y = -1/2 x^2 + 4}$$

$$c) y = a(x+3)^2 + k$$

$$-8 = a(-5+3)^2 + k$$

$$(-8 = 4a + k) \times -1$$

$$(-5, -8), (1, -20)$$

$$-20 = a(1+3)^2 + k$$

$$-20 = 16a + k$$

$$\underline{8 = -4a - k}$$

$$-12 = 12a$$

$$a = -1$$

$$-8 = 4(-1) + k$$

$$k = -4$$

$$\boxed{y = -(x+3)^2 - 4}$$

$$d) y = a(x-4)^2 + k, (1, -13), (-1, -45)$$

$$-13 = a(1-4)^2 + k$$

$$(-13 = 9a + k) \times -1$$

$$-45 = a(-1-4)^2 + k$$

$$-45 = 25a + k$$

$$\underline{13 = -9a - k}$$

$$-28 = 14a$$

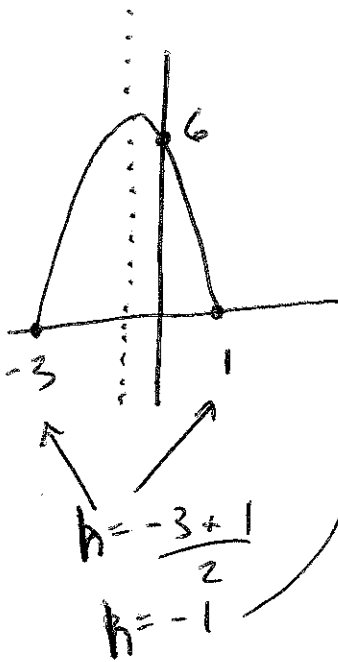
$$a = -2$$

$$-13 = 9(-2) + k$$

$$k = 5$$

$$y = -2(x-4)^2 + 5$$

4.



$$y = a(x-h)^2 + k$$

$$y = a(x+1)^2 + k, \text{ passe par } (0, 6) \text{ et } (1, 0)$$

$$6 = a(0+1)^2 + k$$

$$(a+k=6) \times -1$$

$$0 = a(1+1)^2 + k$$

$$0 = 4a + k$$

$$\underline{-6 = -a - k}$$

$$-6 = 3a$$

$$a = -2$$

$$-2 + k = 6$$

$$k = 8$$

$$y = -2(x+1)^2 + 8$$