

Question 1

Solve each linear system.

a) $\frac{1}{2}x + \frac{2}{3}y = 1$

b) $\frac{3}{4}x + \frac{1}{2}y = -\frac{7}{12}$

$\frac{1}{4}x - \frac{1}{3}y = \frac{5}{2}$

$x - y = -\frac{4}{3}$

c) $\frac{1}{3}x - \frac{3}{8}y = 1$

d) $\frac{7}{4}x + \frac{4}{3}y = 3$

$-\frac{1}{4}x - \frac{1}{8}y = \frac{3}{2}$

$\frac{1}{2}x - \frac{5}{6}y = 2$

Question 2:

(a) $\frac{1}{3}x - y = -2$

(b) $y + \frac{3}{4}x = 4$

(c) $\frac{1}{2}x + y = 4$

$x - \frac{2}{3}y = 1$

$x - \frac{1}{4}y = -1$

$\frac{1}{2}x - y = 2$

(d) $2x - \frac{1}{2}y = 4$

(e) $\frac{1}{2}x + \frac{1}{3}y = 5$

(f) $\frac{1}{2}a - b = 2$

$\frac{2}{3}x = y - 2$

$\frac{1}{3}y - x = -4$

$\frac{2}{3}a + b = 5$

Solutions:

Question 1 a) $x=6, y=-3$ b) $x=-1, y=1/3$ c) $x=-\frac{42}{13}, y=\frac{-72}{13}$

d) $x=\frac{124}{51}, y=-\frac{16}{17}$

Question 2: a) (3,3) b) (0,4) c) (6,1) d) (3,4) e) (6,6)

f) (6,1)