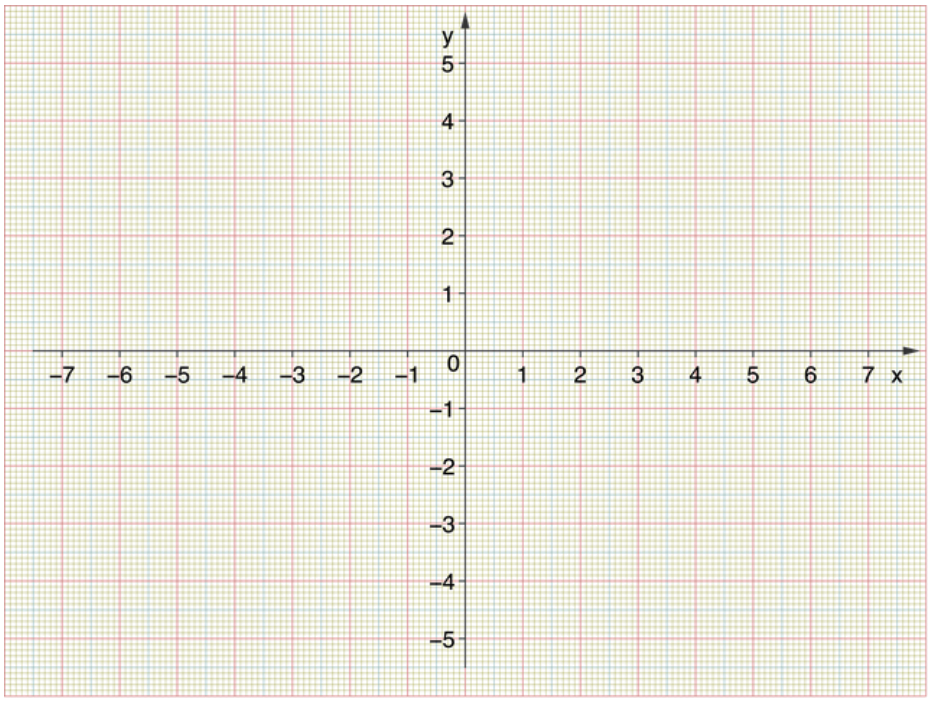
1. Make a list of (x, y) pairs and connect them to plot the lines.

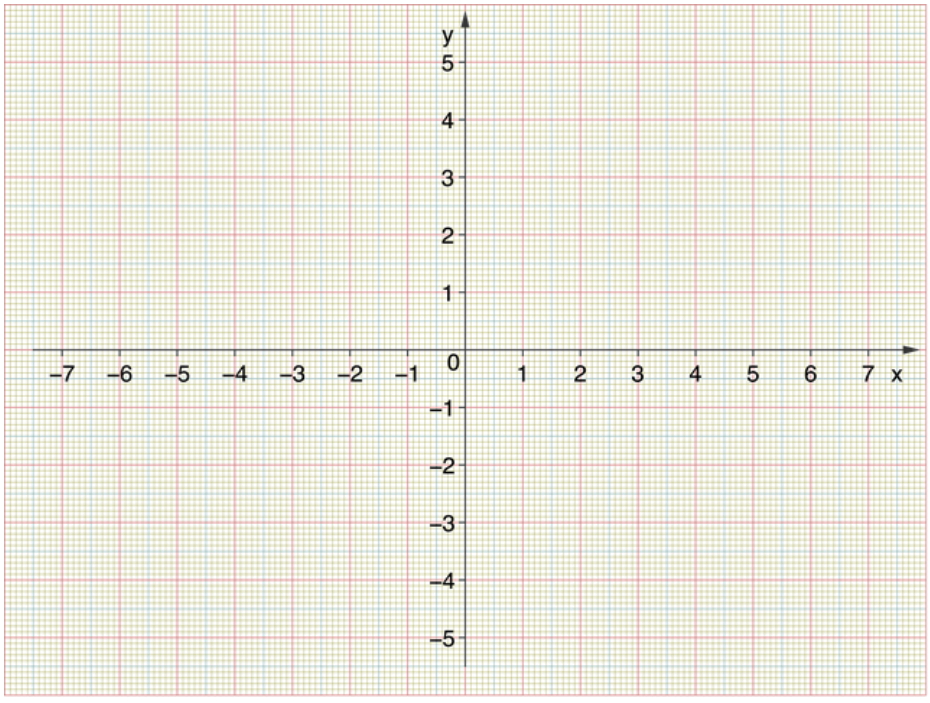
a) $y = x$

x	y



b) $y = -x$

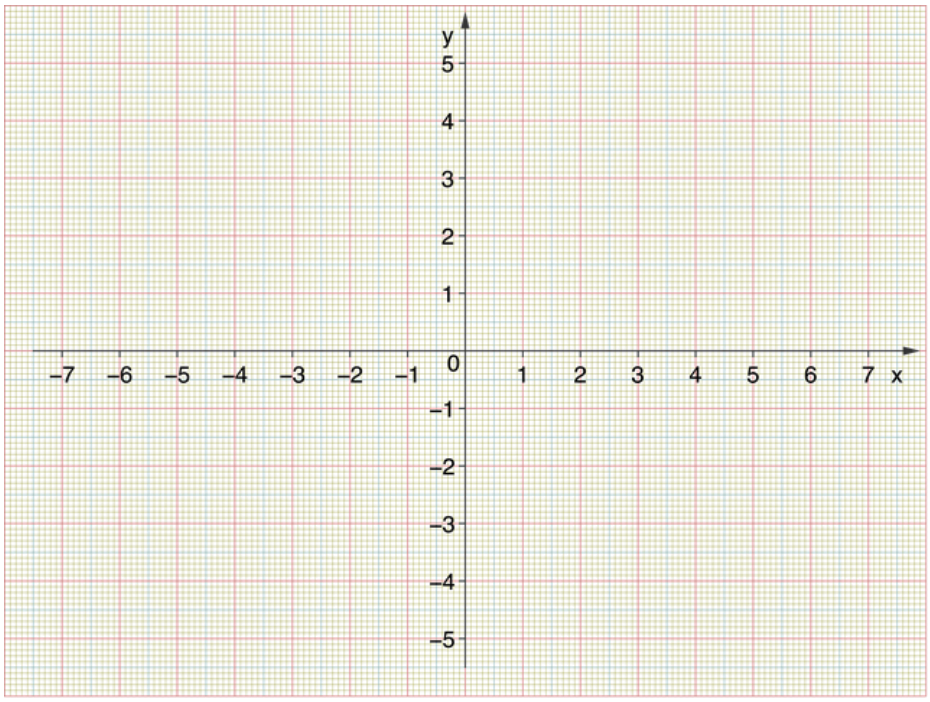
x	y



2. Make a list of (x, y) pairs and connect them to plot the lines.

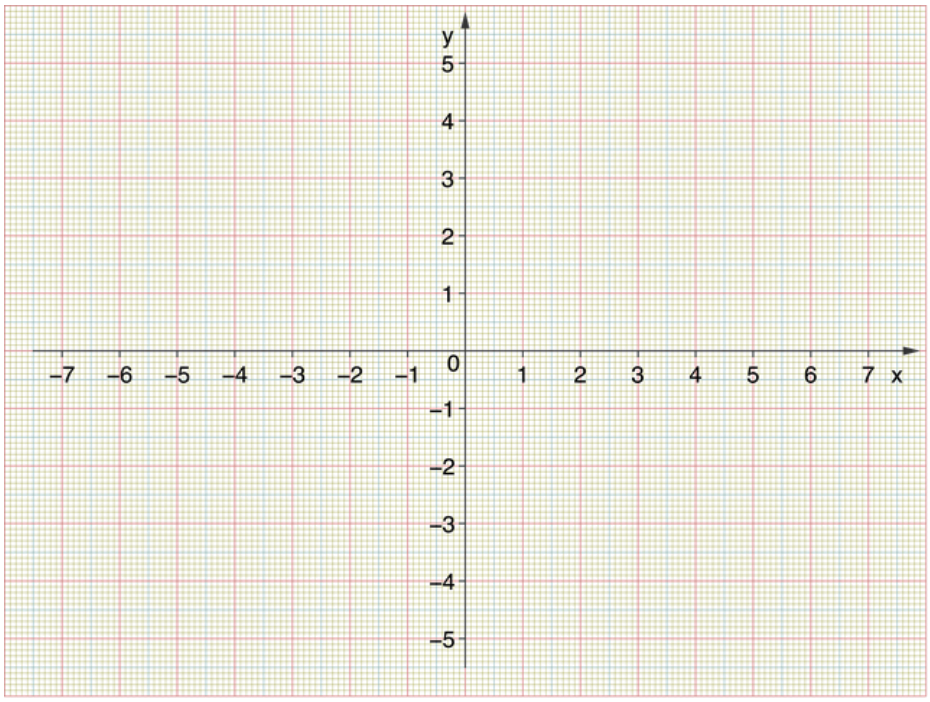
a) $y = 2x$

x	y



b) $y = -2x$

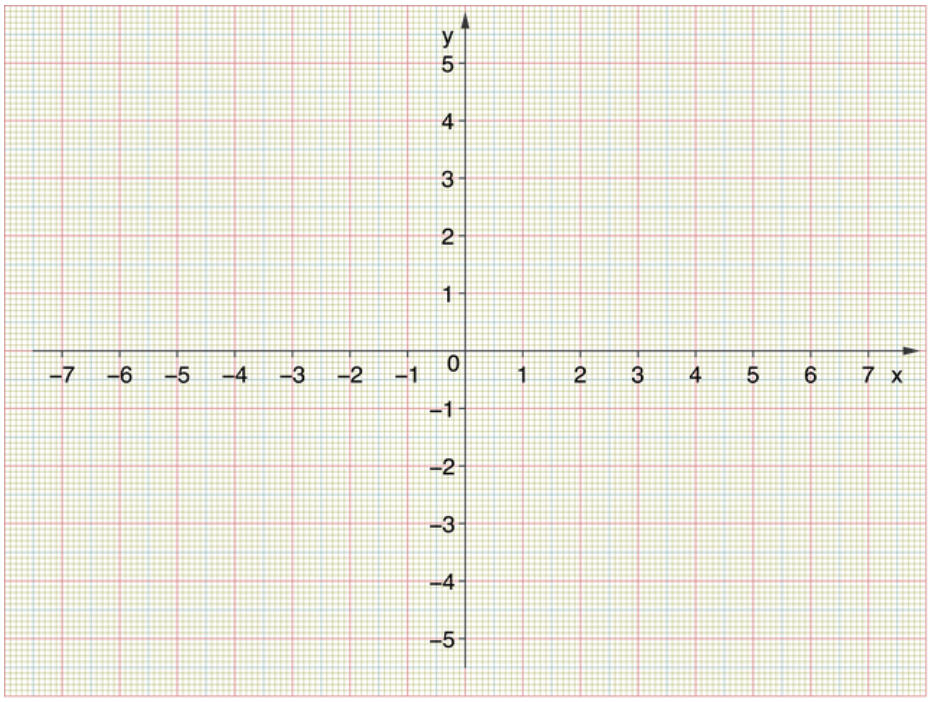
x	y



3. Make a list of (x, y) pairs and connect them to plot the lines.

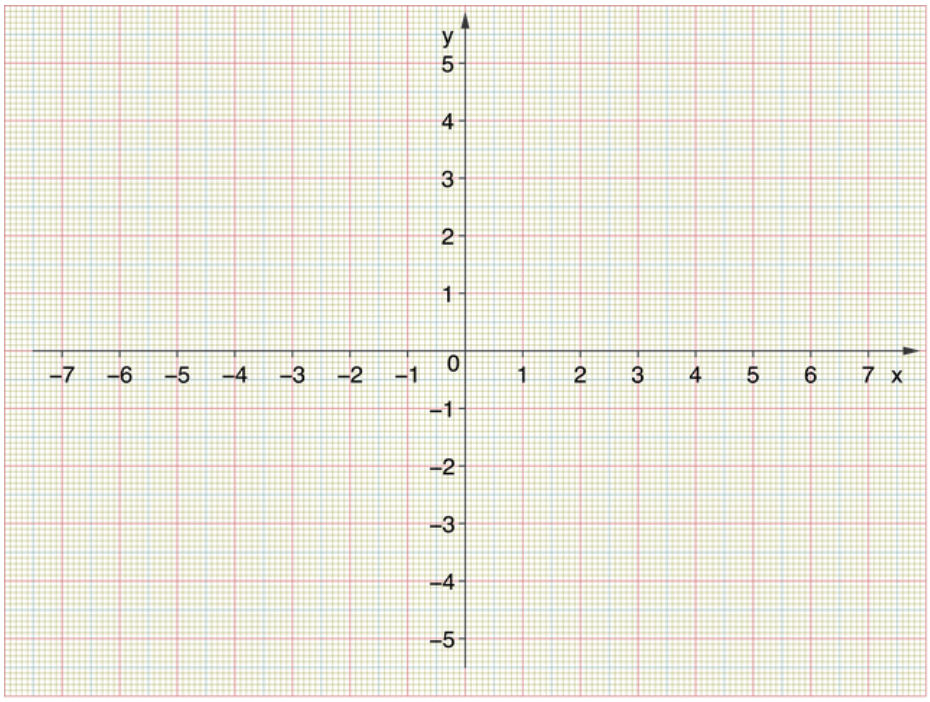
a) $y = \frac{1}{2}x$

x	y



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

x	y



4. How do we know an equation represents a line?

5. Give slope (m) for the following lines as the ratio $\frac{vertical\ rise}{horizontal\ run}$

a) $y = \frac{1}{2}x$ b) $y = \frac{1}{3}x$ c) $y = \frac{1}{4}x$

d) $y = -\frac{1}{2}x$ e) $y = -\frac{1}{3}x$ f) $y = -\frac{1}{4}x$

g) $y = x$ h) $y = 2x$ i) $y = 3x$

j) $y = -x$ k) $y = -2x$ l) $y = -3x$

6. How do we know when a line passes through the origin at (0, 0)?

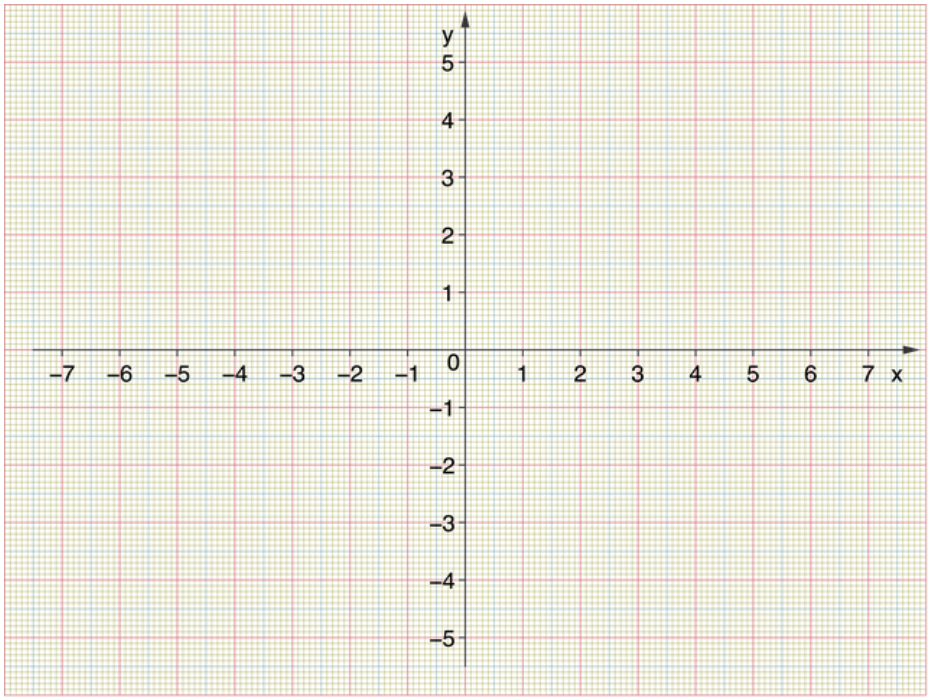
7. Use the slope to plot these four lines on the same axis

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

b) $y = \frac{1}{3}x$

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

d) $y = \frac{1}{5}x$



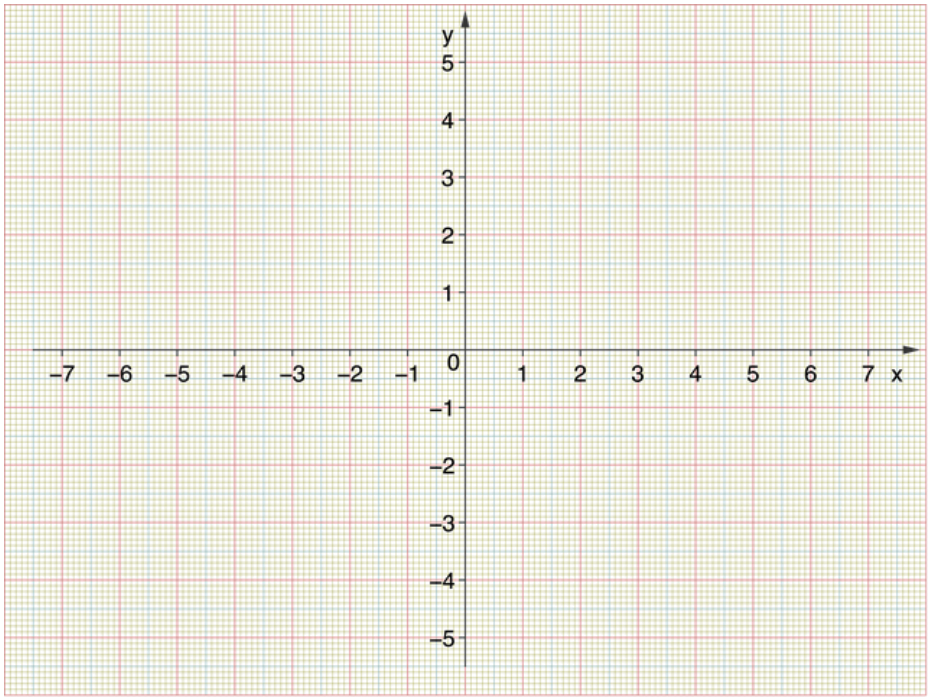
8. Use the slope to plot these four lines on the same axis

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

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

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

d) $y = -\frac{1}{5}x$



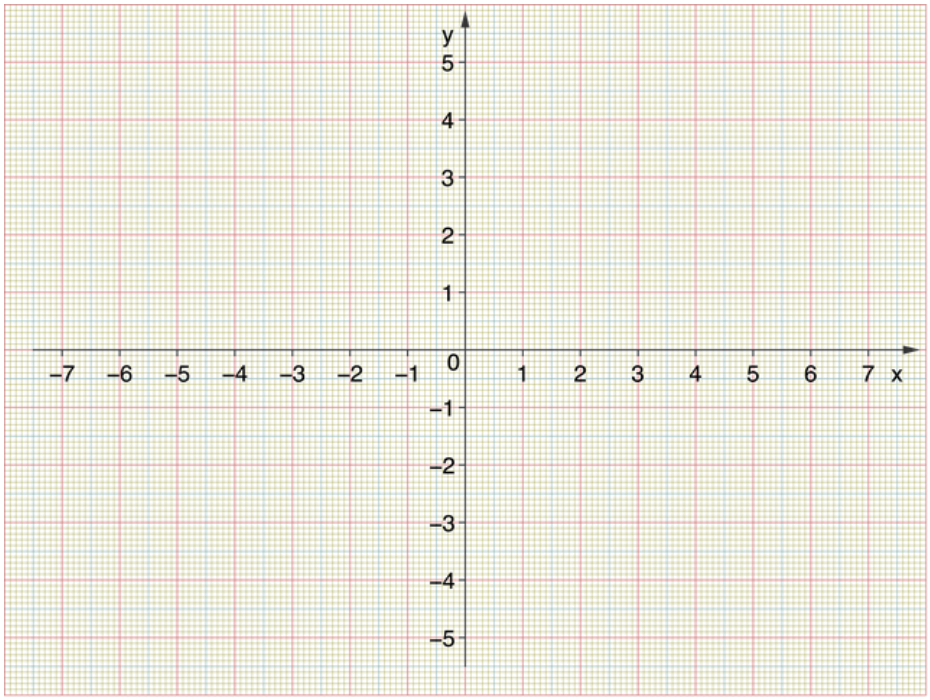
9. Use the slope to plot these four lines on the same axis

a) $y = 2x$

b) $y = 3x$

c) $y = 4x$

d) $y = 5x$



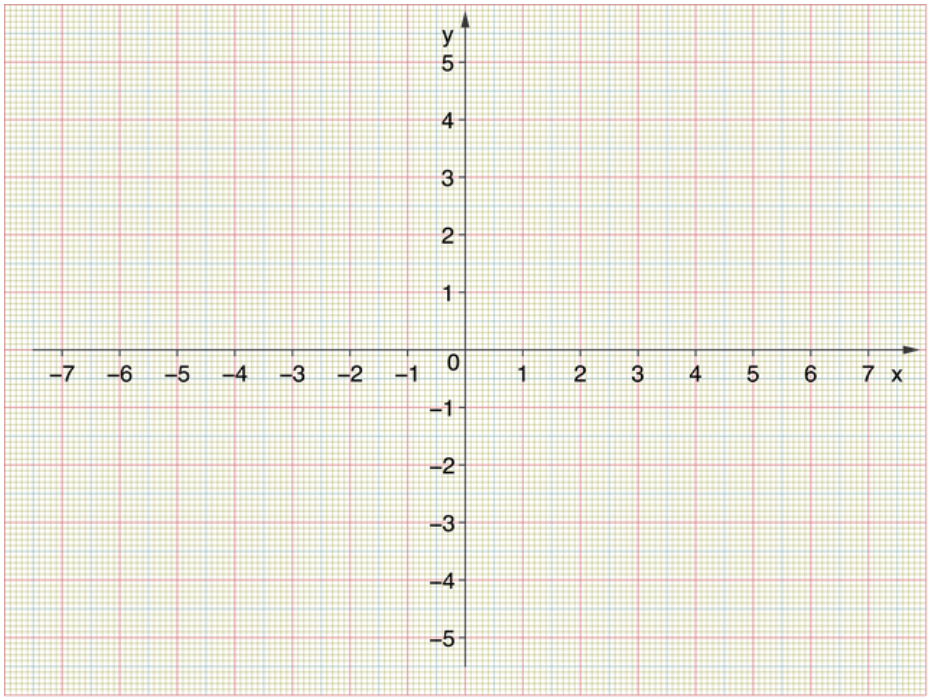
10. Use the slope to plot these four lines on the same axis

a) $y = -2x$

b) $y = -3x$

c) $y = -4x$

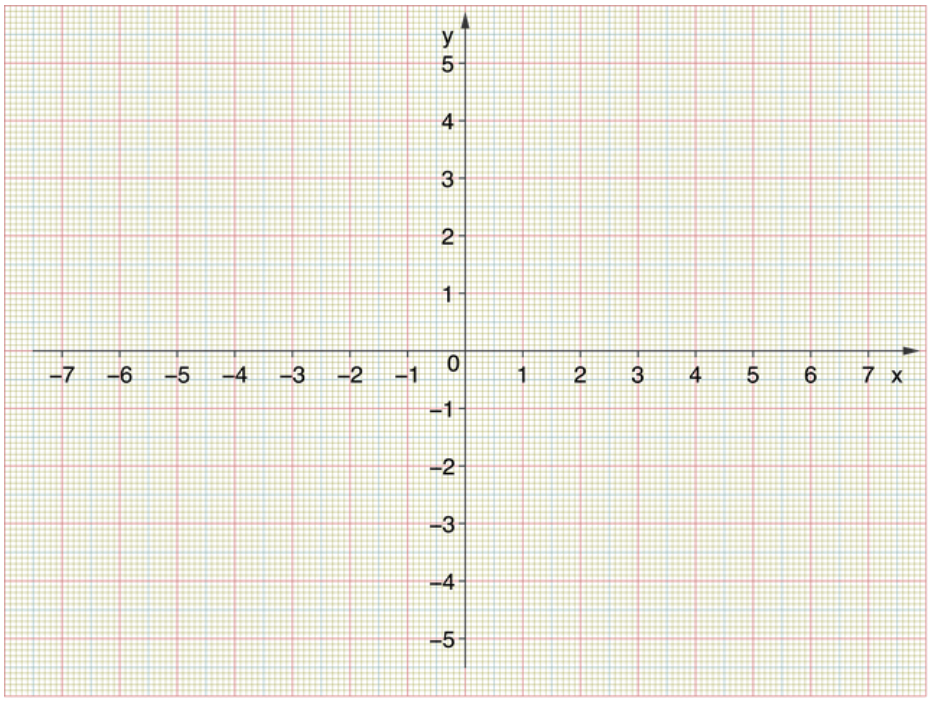
d) $y = -5x$



11. Make a list of (x, y) pairs and connect them to plot the lines.

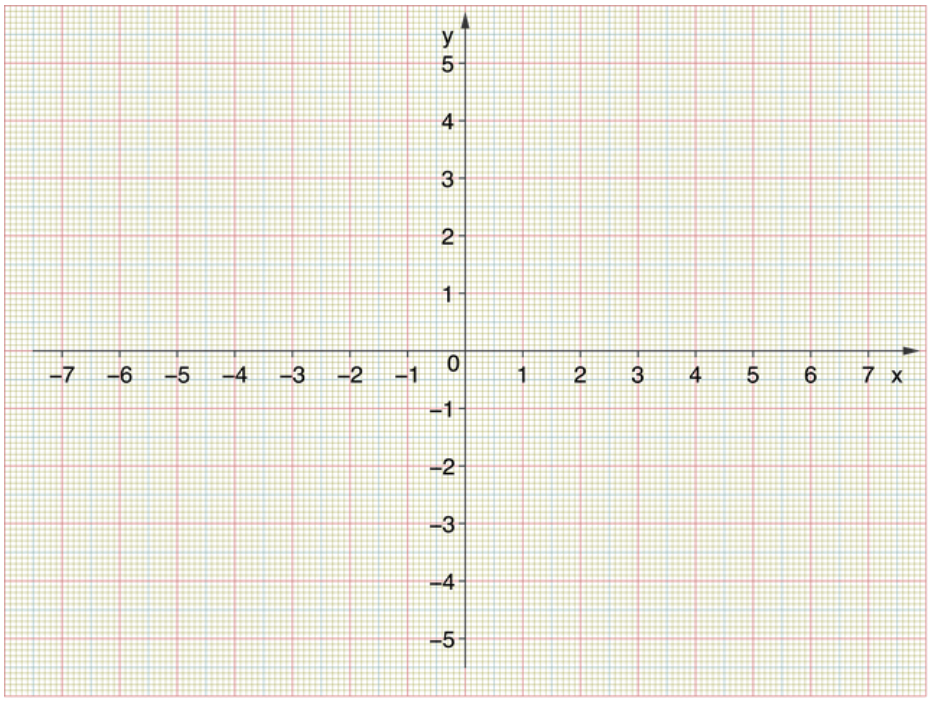
a) $y = x + 2$

x	y



b) $y = -x + 3$

x	y



12. How does a constant term (a number like 2 or 3) affect the line?

13. Give slope (m) and y-intercept (b) for the following lines (y = mx + b)

a) $y = \frac{1}{2}x + 1$ b) $y = \frac{1}{3}x + 2$ c) $y = \frac{1}{4}x + 3$

d) $y = -\frac{1}{2}x + 4$ e) $y = -\frac{1}{3}x + 5$ f) $y = -\frac{1}{4}x + 6$

g) $y = x - 1$ h) $y = 2x - 2$ i) $y = 3x - 3$

j) $y = -x - 4$ k) $y = -2x - 5$ l) $y = -3x - 6$

14. Use slope/intercept to plot these five lines on the same axis

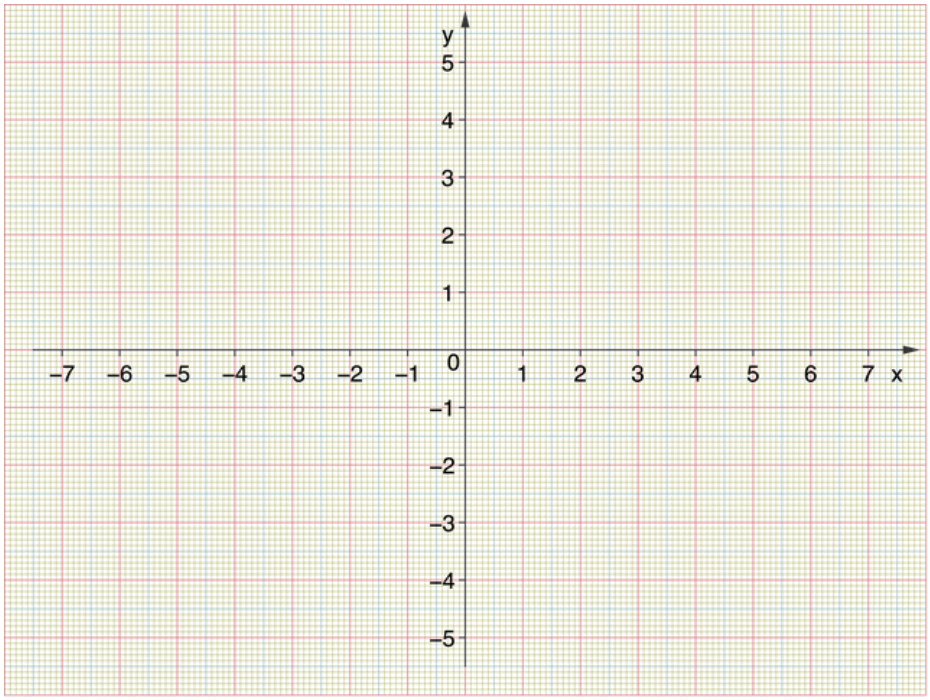
a) $y = x + 2$

b) $y = x + 1$

c) $y = x$

d) $y = x - 1$

e) $y = x - 2$



15. Use slope/intercept to plot these five lines on the same axis

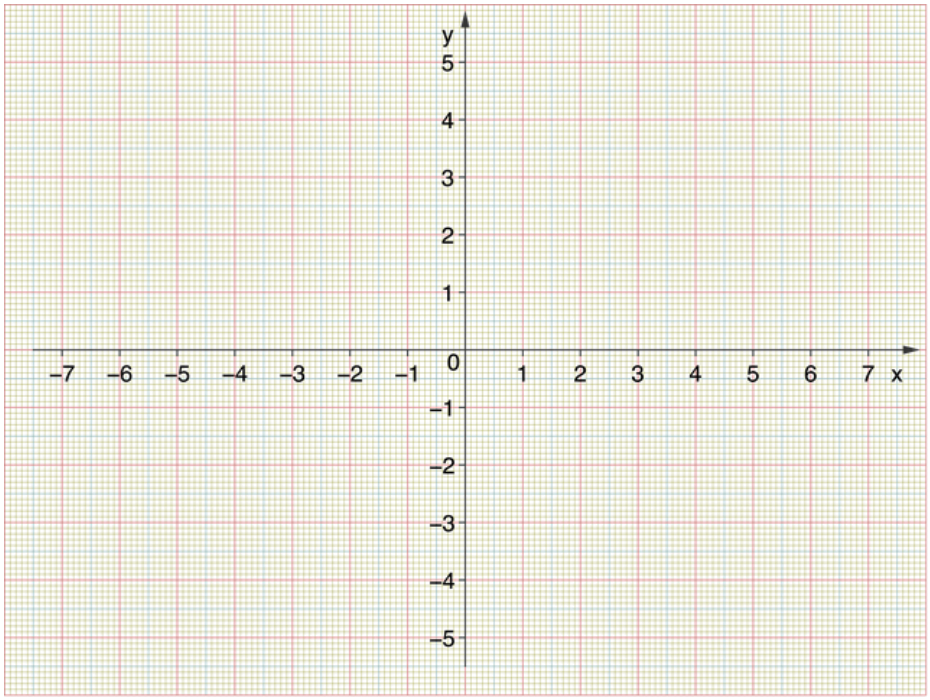
a) $y = -x + 4$

b) $y = -x + 2$

c) $y = -x$

d) $y = -x - 2$

e) $y = -x - 4$

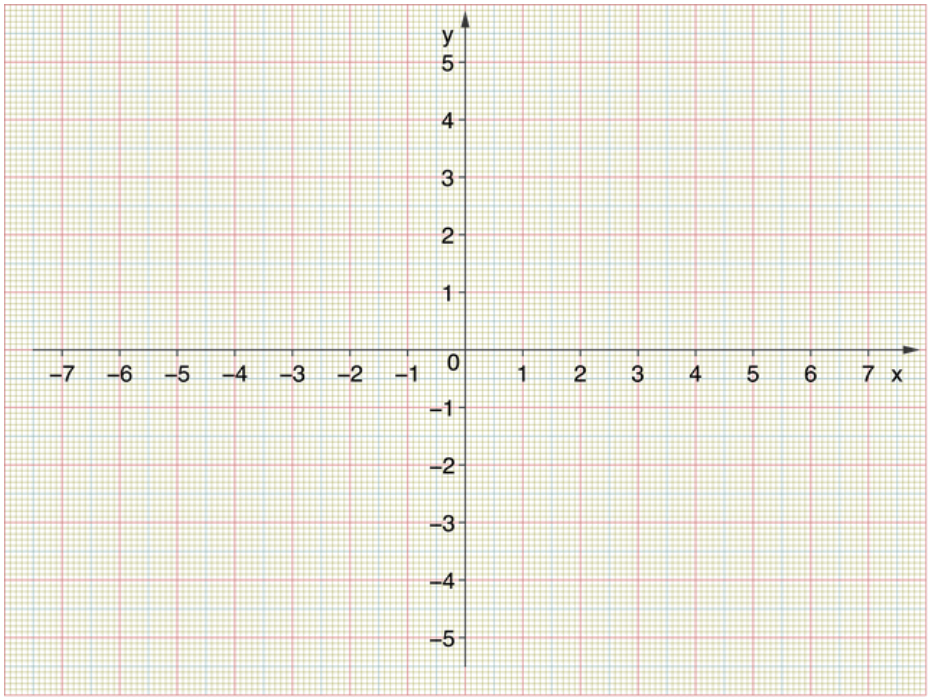


16. Use slope/intercept to plot these three lines on the same axis

a) $y = \frac{1}{2}x + 5$

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

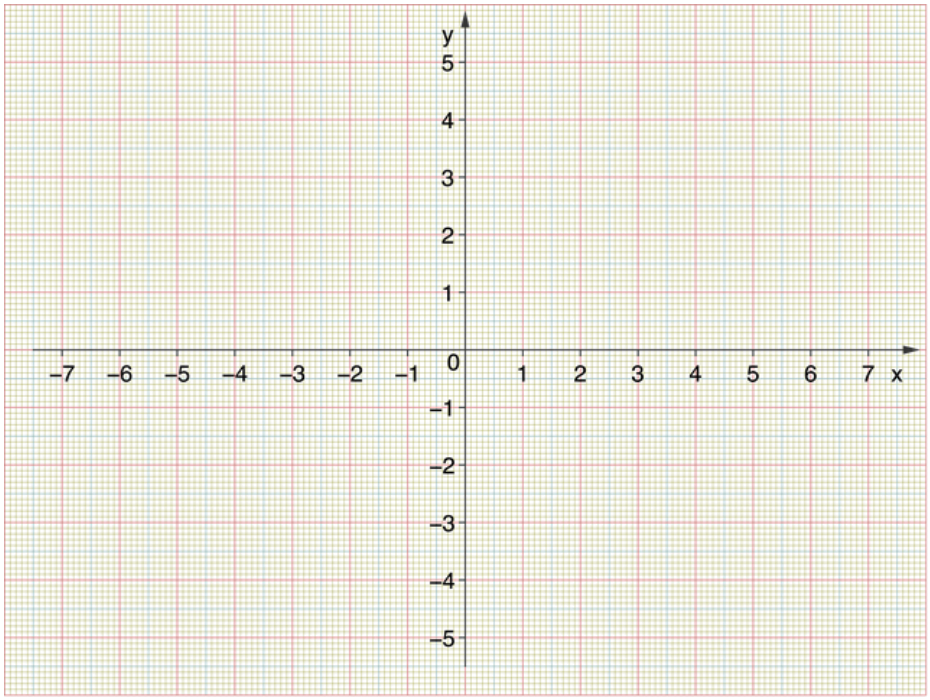
c) $y = \frac{1}{2}x$



17. Use slope/intercept to plot these two lines on the same axis

a) $2y = x$

b) $3y - 6 = x$



18. Freehand the following lines, denoting the slope and intercept.

a) $y = \frac{1}{2}x + 5$ b) $y = \frac{1}{2}x + 7$ c) $y = \frac{1}{2}x + 9$