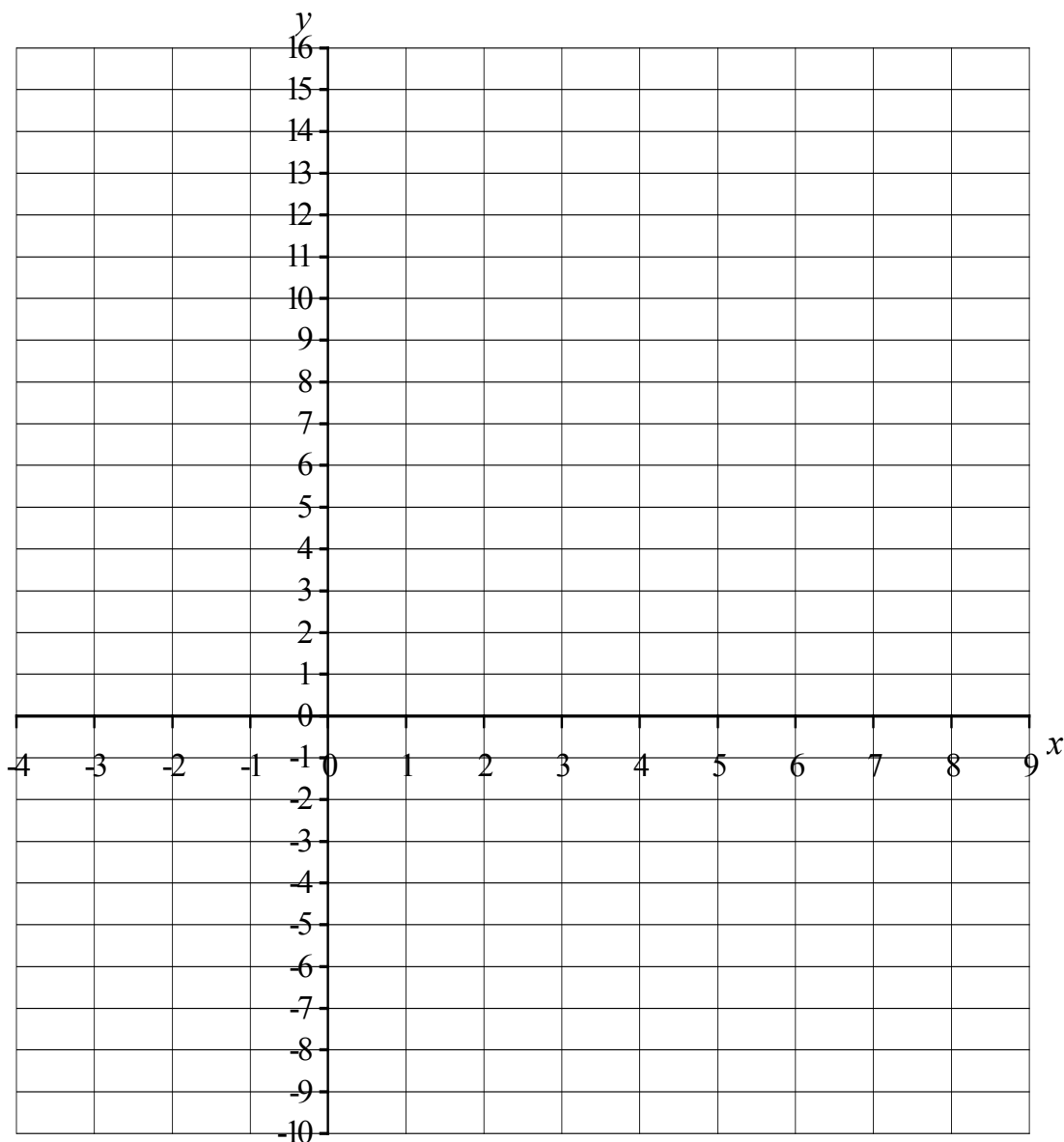


REVISION ON STRAIGHT LINES; -GRADIENTS and INTERCEPTS

NAME

1)



Draw, **and label**, the following lines on the above axes and complete the accompanying statements.

i) $y = 2x - 3$

Gradient =

Intercept =

ii) $y = x + 3$

Gradient =

Intercept =

iii) $y = 3x - 1$

Gradient =

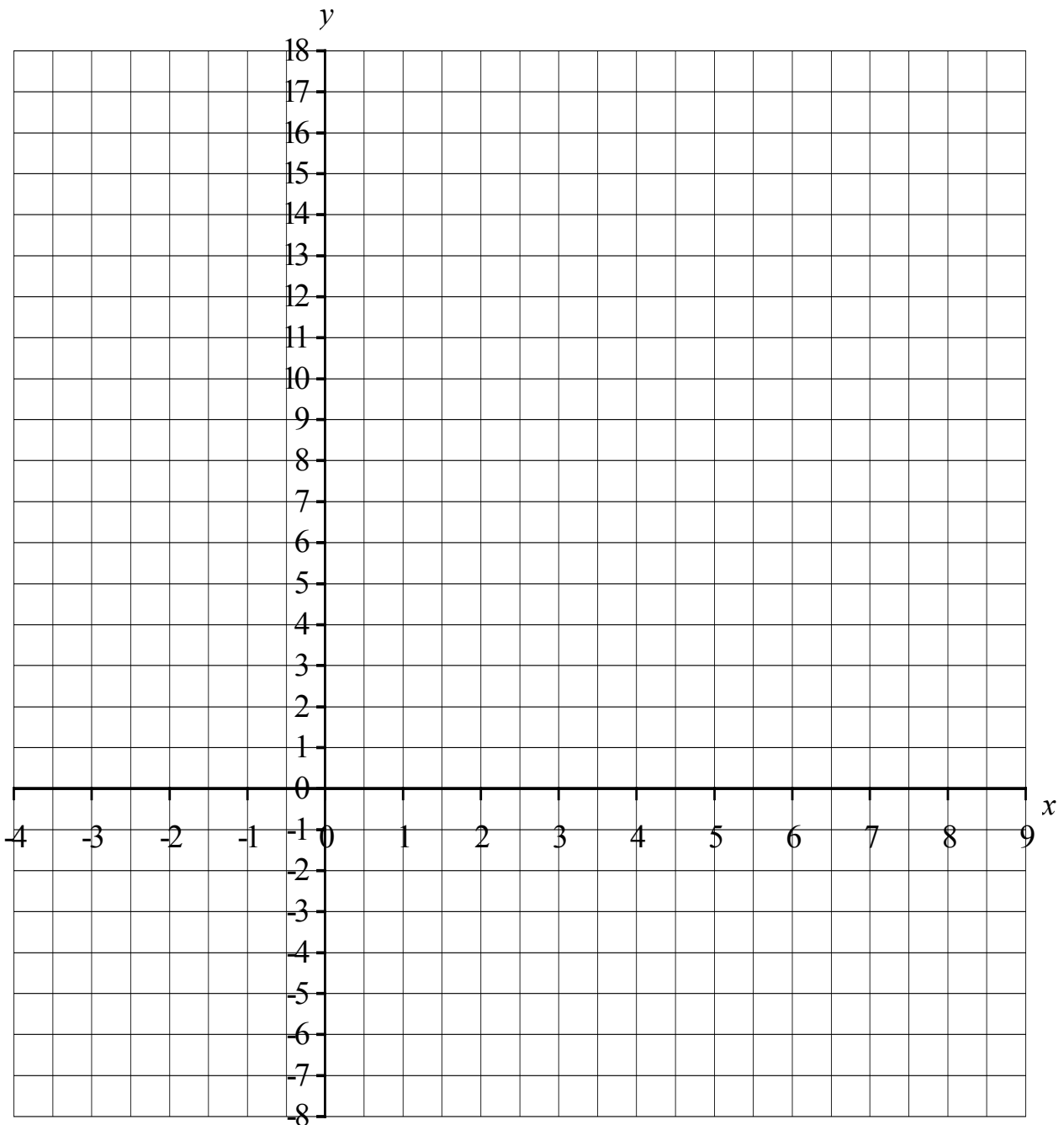
Intercept =

iv) $y = 8 - 2x$

Gradient =

Intercept =

2)



Draw, **and label**, the following lines on the above axes and complete the accompanying statements.

i) $y + 2x = 10$

Gradient =
Intercept =

ii) $y - x = 1$

Gradient =
Intercept =

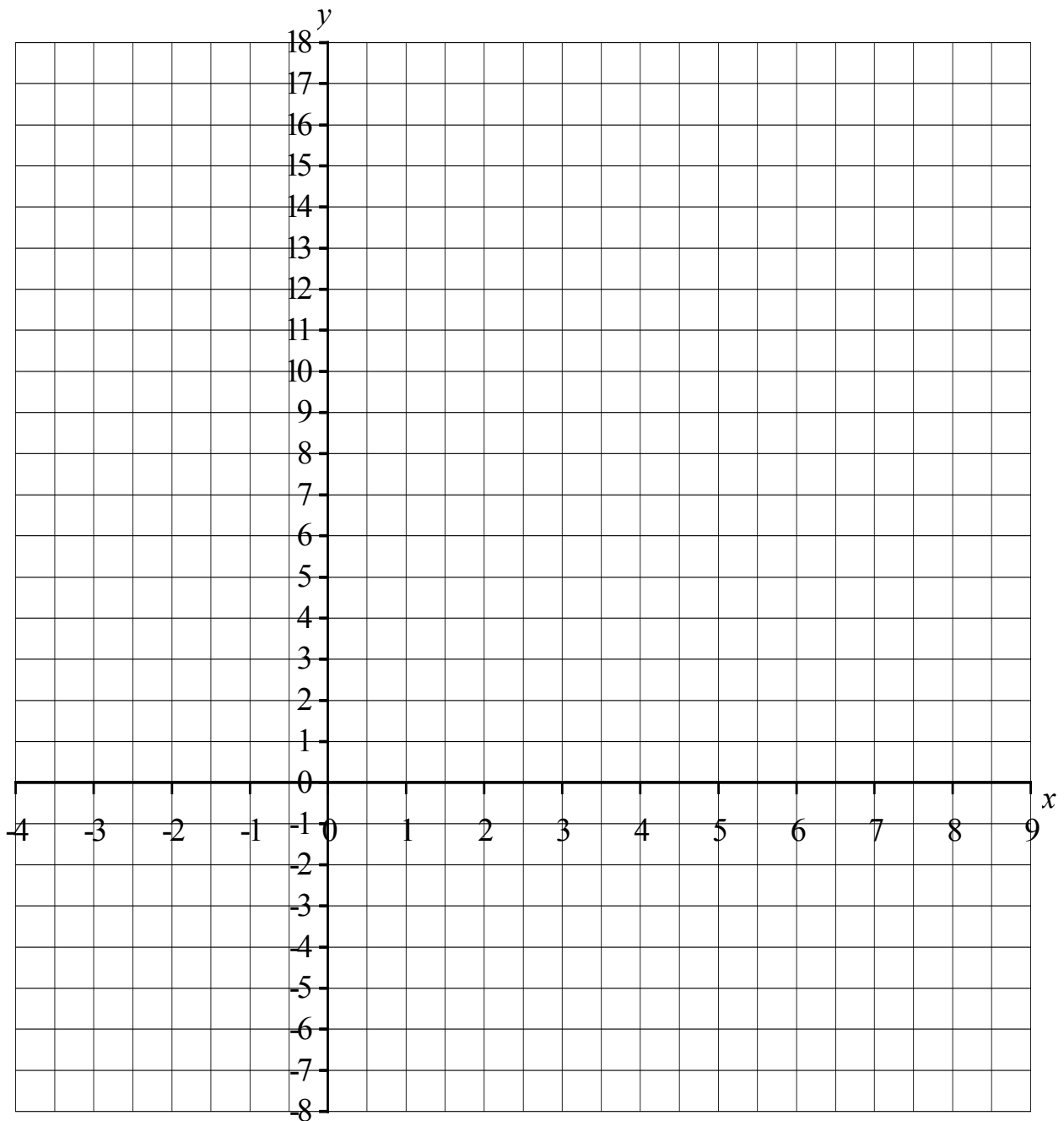
iii) $x - y = 5$

Gradient =
Intercept =

iv) $2y + x = 8$

Gradient =
Intercept =

3)



Find the gradients and intercepts of the following lines and hence draw the lines on the above axes.

i) $y = x - 3$

Gradient =
Intercept =

ii) $y = 6 - x$

Gradient =
Intercept =

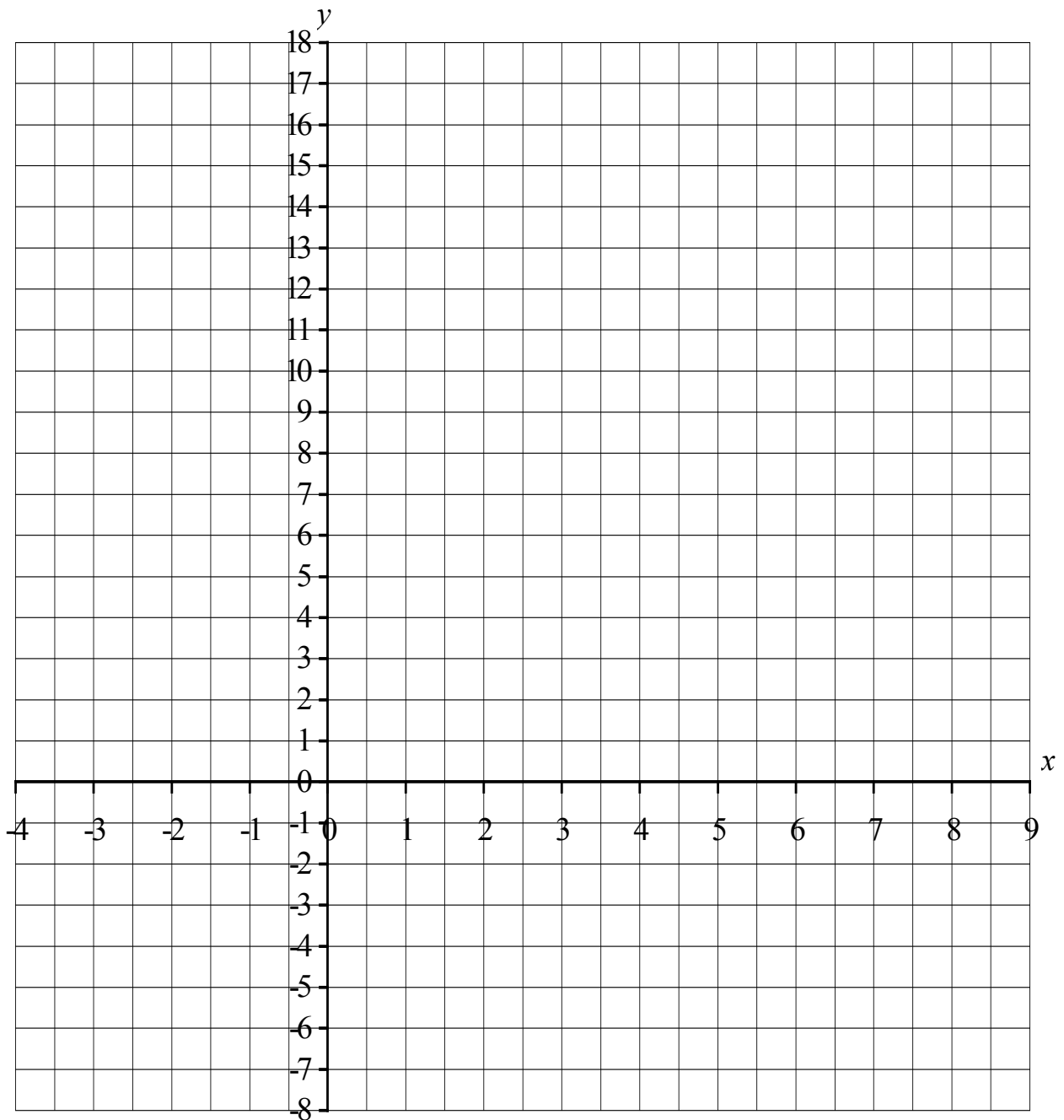
iii) $y = 12 - 2x$

Gradient =
Intercept =

iv) $y = 4 + 1.5x$

Gradient =
Intercept =

4)



Find the gradients and intercepts of the following lines and hence draw the lines on the above axes.

i) $y + 2x = 9$

Gradient =
Intercept =

ii) $y + x = 4$

Gradient =
Intercept =

iii) $y - 3x = 1$

Gradient =
Intercept =

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

Gradient =
Intercept =

5) By rearranging the following straight line formulas into the form $y = mx + c$ (if needed) find the gradients and intercepts of the lines.

a) $y = 3x + 1$.

Gradient =

Intercept =

b) $y = 4x - 1$.

Gradient =

Intercept =

c) $y = 3 + 2x$.

Gradient =

Intercept =

d) $y = 2 - 3x$.

Gradient =

Intercept =

e) $y + 3x = 1$.

Gradient =

Intercept =

f) $y - 4x = -3$.

Gradient =

Intercept =

g) $2x + y = 7$.

Gradient =

Intercept =

h) $2y = 2 + 6x$.

Gradient =

Intercept =

i) $3y + 9x = 12$.

Gradient =

Intercept =

j) $2y - 8 = 2x$.

Gradient =

Intercept =

k) $2y = 6 + 3x$.

Gradient =

Intercept =

l) $2y = 2 - 5x$.

Gradient =

Intercept =

6) Each of the following describes a straight line, find the equation of the line in the form $y = mx + c$.

a) The line with intercept 3 and gradient 2.

Equation of line is $y =$

b) The line with intercept 5 and gradient -2 .

Equation of line is $y =$

c) The line with intercept 0 and gradient 1.

Equation of line is $y =$

d) The line with gradient 2 and passing through the point (3, 2).

Equation of line is $y =$

e) The line with gradient 3 and passing through the point (2, 1).

Equation of line is $y =$

f) The line with gradient 1 and passing through the point (3, 0).

Equation of line is $y =$

g) The line with gradient 3 and passing through the point (1, 2).

Equation of line is $y =$

h) The line with gradient -2 and passing through the point (1, 6).

Equation of line is $y =$

ANSWERS.

		<u>Gradient</u>	<u>Intercept</u>
1)	i)	2	-3
	ii)	1	3
	iii)	3	-1
	iv)	-2	8
2)	i)	-2	10
	ii)	1	1
	iii)	1	-5
	iv)	$-\frac{1}{2}$	4
3)	i)	1	-3
	ii)	-1	6
	iii)	-2	12
	iv)	1.5	4
4)	i)	-2	9
	ii)	-1	4
	iii)	3	1
	iv)	$-\frac{1}{2}$	2
5)	a)	3	1
	b)	4	-1
	c)	2	3
	d)	-3	2
	e)	-3	1
	f)	4	-3
	g)	-2	7
	h)	3	1
	i)	-3	4
	j)	1	4
	k)	1.5	3
	l)	-2.5	1

6) a) $y = 2x + 3$, b) $y = 5 - 2x$, c) $y = x$, d) $y = 2x - 4$, e) $y = 3x - 5$, f) $y = x - 3$, g) $y = 3x - 1$,
h) $y = 8 - 2x$.