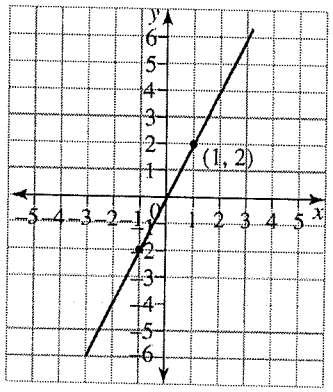
Coordinate geometry

Name: _____

All Multiple Choice

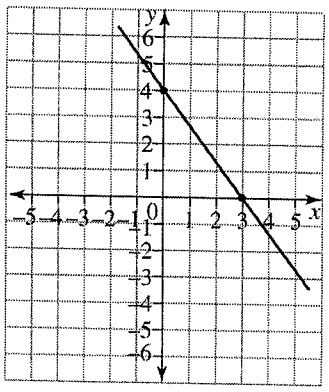
1



The gradient of this graph is:

A 0.5
B –2
C 2
D –0.5

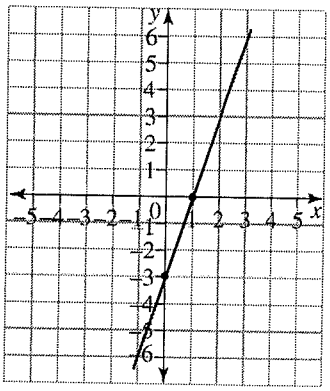
2



The y-intercept of this graph is:

A 3
B 4
C 0
D –3

3



The rule for this linear graph is:

A $y = 3x - 3$
B $y = x - 3$
C $y = 3x - 1$
D $y = -3x - 3$

4 A linear graph with rule $y = 5x - 6$ would have:

A $m = 6, b = -5$
B $m = 6, b = 5$
C $m = 5, b = 6$
D $m = 5, b = -6$.

5 What is the x-intercept of the graph of the linear rule $y = 2x - 12$?

A $x = 6$
B $y = 6$
C $x = 12$
D $y = -12$

6 A straight line passes through the points (5, 1) and (1, 5). Its gradient is:

A 5
B 1
C –1
D –5

7 The rule for the straight line in question **6** is:

A $y = -5x + 1$
B $y = -x + 6$
C $y = x + 6$
D $y = -x + 5$

8 The x-intercept for the graph of the linear rule $5x - 10y = 20$ is:

A $x = 20$
B $x = -4$
C $x = 4$
D $x = -2$

9 The gradient of the straight line described in question **8** is:

A 5
B $-\frac{1}{2}$
C $\frac{1}{2}$
D -2

10 The straight line which has an x-intercept of 3 and a y-intercept of 6 has a gradient of:

A 2
B -2
C 0.5
D -0.5

11 The equation of a linear graph with an x-intercept of -2 and a y-intercept of -4 is:

A $2x + y - 4 = 0$
B $2x - y - 4 = 0$
C $2x - y + 4 = 0$
D $2x + y + 4 = 0$

12 The equation of a linear graph with gradient 3 and x-intercept -3 is:

A $3x - y - 3 = 0$
B $3x + y - 3 = 0$
C $3x - y + 9 = 0$
D $3x - y - 9 = 0$

13 The equation of a linear graph with gradient -1 and passing through $(-2, 7)$ is:

A $x + y + 5 = 0$
B $x + y - 5 = 0$
C $x - y - 5 = 0$
D $x - y + 5 = 0$

14 The equation of a linear graph which passes through $(-4, 2)$ and $(-3, 1)$ is:

A $x + y + 2 = 0$
B $x + y + 4 = 0$
C $x + y + 1 = 0$
D $x + y + 5 = 0$

15 The equation of a linear graph which passes through the origin and $(-6, 5)$ is:

A $5x + 6y = 0$
B $5x - 6y = 0$
C $6x + 5y + 5 = 0$
D $6x - 5y = 0$

16 To plot the graph of $6x - 2y = 6$, this table of values is constructed:

x	0	1		3
y	-3	0	3	

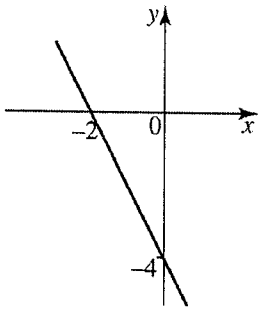
The missing x and y values are:

A $x = -2, y = 6$
B $x = 2, y = 6$
C $x = 2, y = -6$
D $x = -2, y = -6$

17 If the gradient of the line passing through $(-3, 5)$ and $(2, y)$ is -1, then y equals:

A 3
B -1
C -3
D 0

18 The gradient of the line shown is:



A -2

B $-\frac{1}{2}$

C $\frac{1}{2}$

D 2

19 The equation of the line which passes through the points $(-4, 7)$ and $(1, -3)$ is:

A $y = 2x + 1$

B $y = -2x + 1$

C $y = -2x - 1$

D $y = 2x - 1$

20 Which line is parallel to $y = \frac{1}{2}x - 3$?

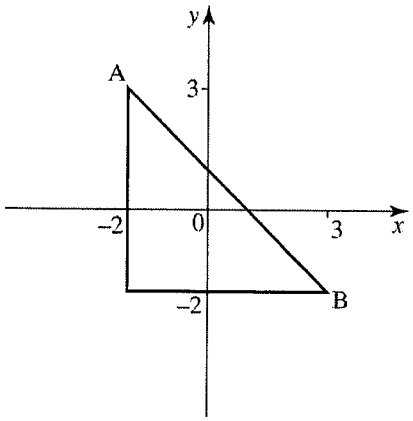
A $x + 2y - 10 = 0$

B $x - 2y - 10 = 0$

C $-x - 2y - 10 = 0$

D $-x - 2y + 10 = 0$

21 The distance between A and B is:



A 5

B $5\sqrt{2}$

C 10

D $\sqrt{26}$

22 The distance between $(7, -3)$ and $(-1, 2)$ is found by calculating:

A $\sqrt{(7+-1)^2+(2+3)^2}$

B $\sqrt{(2-7)^2+(-1+3)^2}$

C $\sqrt{(-1-7)^2+(2+3)^2}$

D $\sqrt{(7-1)^2+(-3+2)^2}$

23 A triangle has coordinates A(1, 3), B(1, 8) and C(6, 8). Which of the following statements is false?

A The length of AB is 5.

B AB is at right angles to BC.

C BC is twice the magnitude of AB.

D Triangle ABC is isosceles.

24 The midpoint of the line segment between the point $(7, -2)$ and $(-1, 6)$ is:

A $(4, 2)$

B $(3, 2)$

C $(-3, 2)$

D $(6, 4)$

25 The gradient of the line parallel to $3x+11y-2=0$ is:

A $\frac{3}{11}$

B $-\frac{3}{11}$

C $\frac{11}{3}$

D $-\frac{11}{3}$

26 The equation of the line parallel to $5x-7y+1=0$ and passing through the point $(-1, -1)$ is:

A $5x-7y+3=0$

B $7x-5y+9=0$

C $7x-5y+2=0$

D $5x-7y-2=0$

27 The gradient of the line perpendicular to $3x-4y+2=0$ is:

A 3

B $\frac{4}{3}$

C $\frac{3}{4}$

D $-\frac{4}{3}$

28 The perpendicular bisector of the line joining A(2, 7) and B(–6, 11) has gradient:

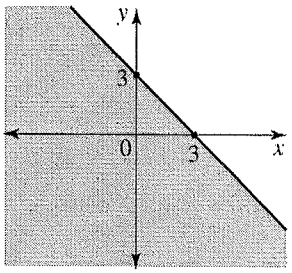
A $\frac{1}{2}$

B $-\frac{1}{2}$

C 2

D –2

29 The shaded region shown in the figure below is represented by which of the following inequalities?



A $y \geq 3-x$

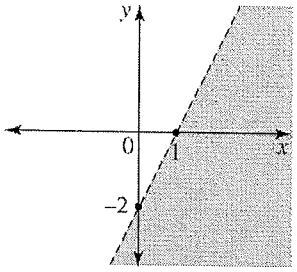
B $y \leq 3-x$

C $y \geq 3+x$

D $y \leq 3+x$

30 The region satisfying the inequation $y < 2x - 1$ is:

A



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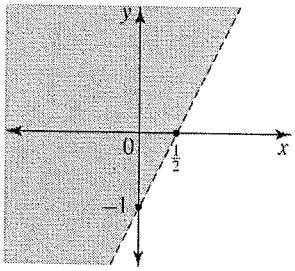

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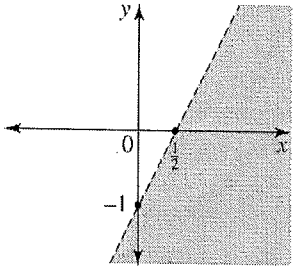

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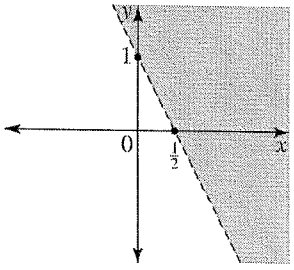

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ANSWERS

(1) C	(8) C	(15) A	(22) C	(29) B
(2) B	(9) C	(16) B	(23) C	(30) C
(3) A	(10) B	(17) D	(24) B	
(4) D	(11) D	(18) A	(25) B	
(5) A	(12) C	(19) C	(26) D	
(6) C	(13) B	(20) B	(27) D	
(7) B	(14) A	(21) B	(28) C	