# Year 9 Class 7 questions

## Q1

Find the distance between the points (1,–1) and (–4,2).

☐ (1 d.p.) 5.8

## Q2

Find the distance between the points (3,–2) and (5,–9).

☐ (1 d.p.) 7.3

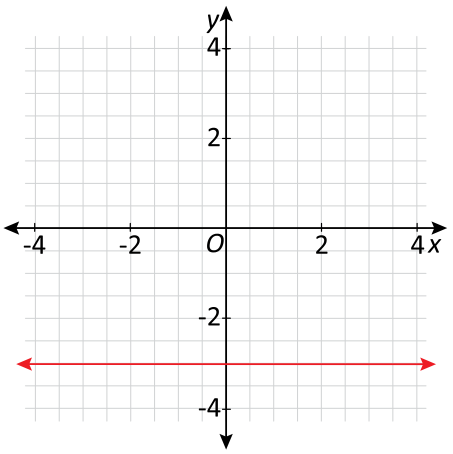
## Q3

Is the graph of $x = \frac{1}{3}$ a horizontal or a vertical line?

○ horizontal line → ○ vertical line

## Q4

What is the equation of this line?




○ $y = -3x$

○ $y = 3 - x$

○ $x = -3$

→ ○ $y = -3$

## Q5

Complete the table for $y = 2x - 1$.

| $x$ | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | | | | |
| | -1 | 1 | 3 | 5 |

## Q6

Choose all the points which lie on the line $y = 7 - 3x$.

→ ☐ (6,-11) → ☐ (2,1)

→ ☐ (-5,22) ☐ (-3,15)

## Q7

Which of these points is closest to the origin (0,0)?

○ (6,2) ○ (3,–5)

→ ○ (–4,4) ○ (7,1)

## Q8

Which of these points is closest to the origin (0,0)?

○ (6,4) ○ (–3,7)

○ (8,–2) → ○ (5,5)

## Q9

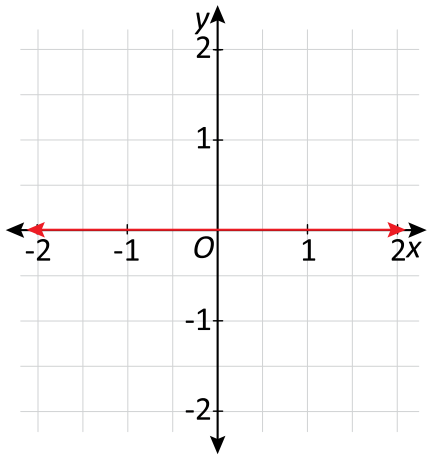
Which of these points is closest to the origin (0,0)?

○ (9,–3) ○ (10,2)

→ ○ (–7,5) ○ (8,4)

## Q10

What is the equation of this line?




- ○ $y = x$
- ○ $x = 0$
- → ○ $y = 0$
- ○ $y = 1$

## Q11

What is the equation of the horizontal line passing through (-6, 3)?

- ○ $x = -6$
- ○ $x = 3$
- → ○ $y = 3$
- ○ $y = -6$

## Q12

What is the equation of the vertical line passing through (-6, 3)?

- → ○ $x = -6$
- ○ $x = 3$
- ○ $y = 3$
- ○ $y = -6$

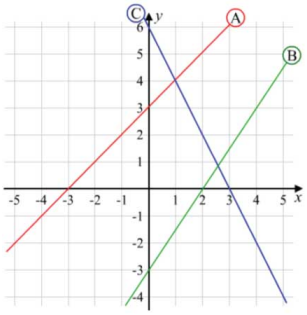
## Q13

Complete the table for $y = 6 - 2x$.

| $x$ | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | | | | |

6 4 2 0

Which is the graph of $y = 6 - 2x$?




- ○ A
- ○ B
- → ○ C

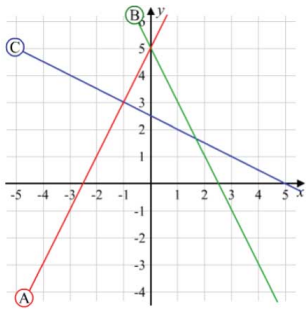
## Q14

Complete the table for $y = 5 - 2x$.

| $x$ | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | | | | |

5 3 1 -1

Which is the graph of $y = 5 - 2x$?




- ○ A
- → ○ B
- ○ C

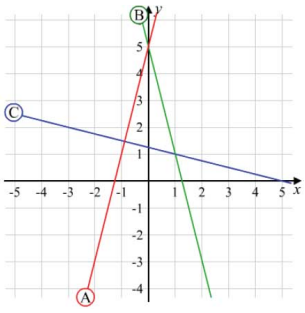
## Q15

Complete the table for $y = 5 - 4x$.

| $x$ | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | | | | |

5 1 -3 -7

Which is the graph of $y = 5 - 4x$?




- ○ A
- → ○ B
- ○ C

## Q16

Choose all the points which lie on the line $5x + y = 8$.

- [x] (3,-7)
- [x] (-1,13)
- [ ] (-3,21)
- [x] (2,-2)

## Q17

Choose all the points which lie on the line $x - 4y + 7 = 0$.

- [ ] (-3,0)
- [x] (13,5)
- [x] (5,3)
- [x] (1,2)

## Q18

Choose all the points which lie on the line $x + 3y - 9 = 0$.

- [x] (0,3)
- [x] (-6,5)
- [ ] (6,-1)
- [x] (3,2)

## Q19

A triangle has vertices A(–2,–1), B(2,2) and C(1,–5).

Find the length of AB. [ ] 5

Find the length of AC. [ ] 5

Find the length of BC. [ ] (1 d.p.) 7.1

What type of triangle is ABC?

- ○ equilateral
- ○ scalene
- ◉ isosceles

## Q20

A triangle has vertices A(–2,–1), B(4,7) and C(–8,9).

Find the length of AB. [ ] 10

Find the length of AC. [ ] (1 d.p.) 11.7

Find the length of BC. [ ] (1 d.p.) 12.2

What type of triangle is ABC?

- ○ equilateral
- ○ isosceles
- ◉ scalene

## Q21

A triangle has vertices A(–2,–1), B(4,7) and C(–8,9).

Find the length of AB. [ ] 10

Find the length of AC. [ ] (1 d.p.) 11.7

Find the length of BC. [ ] (1 d.p.) 12.2

What type of triangle is ABC?

- ○ equilateral
- ○ isosceles
- ◉ scalene

## Q22

Find the equation of the line which is parallel to the $y$-axis and passes through the point (4,-5).

- ○ $x = -5$
- ◉ $x = 4$
- ○ $y = 4$
- ○ $y = -5$

## Q23

Find the equation of the line which is parallel to the $x$-axis and passes through the point (-2,-6).

- ○ $x = -6$
- ○ $x = -2$
- ◉ $y = -6$
- ○ $y = -2$

## Q24

Find the equation of the line which is parallel to the $x$-axis and passes through the point (5,-8).

- ○ $x = -8$
- ○ $x = 5$
- ○ $y = 5$
- → ○ $y = -8$

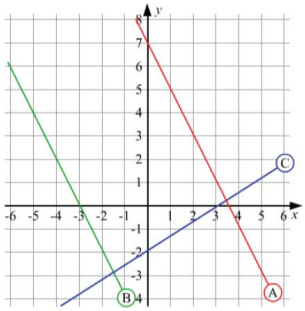
## Q25

Complete the table for $y + 2x = 7$.

| $x$ | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | | | | |

7 5 3 1

Which is the graph of $y + 2x = 7$?



- → ○ A
- ○ B
- ○ C

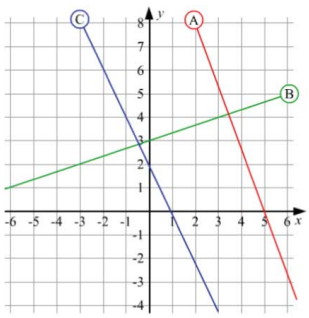
## Q26

Complete the table for $y = \frac{x}{3} + 3$.

| $x$ | -3 | 0 | 3 | 6 |
|---|---|---|---|---|
| $y$ | | | | |

2 3 4 5

Which is the graph of $y = \frac{x}{3} + 3$?



- ○ A
- → ○ B
- ○ C

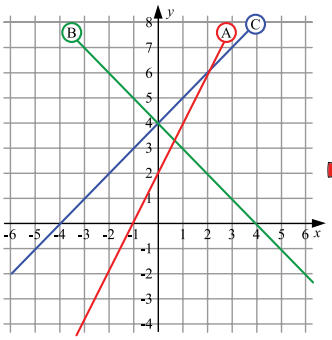
## Q27

Complete the table for $y - x = 4$.

| $x$ | 0 | 1 | 2 | 3 |
|---|---|---|---|---|
| $y$ | | | | |

4 5 6 7

Which is the graph of $y - x = 4$?



- ○ A
- ○ B
- → ○ C

## Q28

Which lines pass through the point (-2,4)?

- → ☐ $y = -2x$
- ☐ $y = 3x + 11$
- → ☐ $y = 2 - x$
- → ☐ $2x - 3y + 16 = 0$

## Q29

Which lines pass through the point (5,-3)?

- → ☐ $y = 7 - 2x$
- → ☐ $2x + 7y + 11 = 0$
- ☐ $y = 4x - 21$
- ☐ $3x + 7y - 1 = 0$

## Q30

Which lines pass through the point (4,-8)?

- ☐ $y = 4x - 22$
- → ☐ $3x - 8y - 76 = 0$
- → ☐ $y = 4 - 3x$
- ☐ $3x + 4y + 18 = 0$