

AQA - Solving equations and inequalities – GCSE Mathematics Paper-21. **May/2020/Paper_2F/No.5**(a) Solve $7x = 56$ **[1 mark]**

 $x =$ _____

(b) Solve $25 - y = 18$ **[1 mark]**

 $y =$ _____

2. **May/2020/Paper_2F/No.21**

Jill puts 440 sweets into small bags, medium bags and large bags.



She uses

30 small bags

twice as many medium bags as large bags.

There are no sweets left over.

For the number of bags, work out the ratio small : medium : large

[4 marks]

Answer _____ : _____ : _____

3. *May/2020/Paper_2H/No.29*

Solve
$$\frac{5}{4x+1} = \frac{2x}{x^2+3}$$

Give your solutions to 3 significant figures.

You **must** show your working.

[5 marks]

Answer _____

4. June/2019/Paper_2F/No.24

x is an integer.

$$-4 < x \leq 2$$

and

$$2 \leq x + 3 < 9$$

Work out all the possible values of x .

[3 marks]

Answer _____

5. June/2019/Paper_2H/No.1

Circle the point that lies on the curve $y = x^2 - 4x + 1$

[1 mark]

(-1, 4)

(-1, -4)

(-1, -2)

(-1, 6)

6. June/2019/Paper_2H/No.10

x is an integer.

$$-4 < x \leq 2$$

and

$$2 \leq x + 3 < 9$$

Work out all the possible values of x .

[3 marks]

Answer _____

7. **June/2019/Paper_2H/No.14**
Ali and Mel are making 3-digit codes.
The digit 0 is **not** used.
Ali only uses odd digits.
Mel only uses even digits.

- (a) Ali can make x more codes than Mel.
Assume that digits **cannot** be repeated.

Work out the value of x .

[3 marks]

Answer _____

- (b) In fact, digits **can** be repeated.

What does this tell you about the actual value of x ?

Tick **one** box.

[1 mark]

It is bigger than my answer to part (a)

It is smaller than my answer to part (a)

It is the same as my answer to part (a)

8. Nov/2019/Paper_2F/No.7

(a) Solve $x + 17 = 12$

[1 mark]

$x =$ _____

(b) Solve $\frac{w}{4} = 12$

[1 mark]

$w =$ _____

(c) Simplify fully $\frac{9m}{12m}$

[2 marks]

Answer _____

9. Nov/2019/Paper_2H/No.8

Here is an identity.

$$a(3x - 10) \equiv 21x + 2b$$

Work out the values of a and b .

[3 marks]

$$a = \underline{\hspace{2cm}} \quad b = \underline{\hspace{2cm}}$$

10. Nov/2019/Paper_2H/No.24
Here are two inequalities.

$$-2 \leq x \leq 3$$

$$9 \leq x + y \leq 11$$

x and y are integers.

Work out the **greatest** possible value of $y - x$

[3 marks]

Answer _____