Week 16

Monday 6th July 2020

Year 5 Finding Pairs of Value - Reasoning and Problem Solving

*As Algebra is mainly a Year 6 objective, you only have **D** and **E** to complete

Substitution

1a.

$$d = 2e + 50$$
$$f = d - 17$$

Hafsa says:

If e = 7 then f = 47.

Is she correct?

Explain your answer.

D

Substitution

1b.

$$d = 2e$$
$$f = 9 + d$$

Will says:

If e = 12 then f = 3.

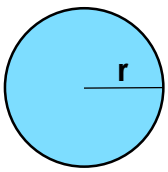
Is he correct?

Explain your answer.

D

2a. Jordan is calculating the diameter of a circle.

He is using the equation d = 2r.



He calculates that d = 20cm.

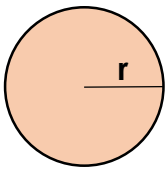
What is the value of r?

D

Not to scale

2b. Millie is calculating the diameter of a circle.

She is using the equation d = 2r.



She calculates that d = 8cm.

What is the value of r?

D

Not to scale

3a. True or false?

$$e = 2f - 15$$

When f = 20, e = 5.

Explain your answer.

D

3b. True or false?

$$e = f + 100$$

When f = 250, e = 350.

Explain your answer.

D

Substitution

4a.

$$a = 3b - 4$$
$$c = a + 10$$

Evie says:

If b = 5 then c = 20.

Is she correct?

Explain your answer.

E

Substitution

4b.

$$a = 10b \div 2$$
$$c = 25 + a$$

Jaxon says:

If b = 0.5 then c = 15.

Is he correct?

Explain your answer.

E

5a. Jaiden is calculating the perimeter of a rectangle.

He is using the equation P = 2a + 2b.

When a = 6.5cm, he calculates that P = 19cm.

What is the value of b?

E

Not to scale

5b. Sophia is calculating the area of a rectangle.

She is using the equation A = b x c.

When b = 12cm, she calculates that $A = 60cm^2$.

What is the value of c?

E

Not to scale

6a. True or false?

$$a = bc - 5$$

When b = 10 and c = 9, a = 14.

Explain your answer.

E

6b. True or false?

$$a = (b - 10c) \times 11$$

When b = 25 and c = 2.5, a = 11.

Explain your answer.

E