Algebra 3 – satisfying equations

Example

a + b = 10 – possible answer a=8, b=2

Practise

Find numbers that make the following calculations correct:

1) m + d = 29

2) c – d = 31

3) b – a = 53

4) ab = 12

5) ca= 36

6) af = 24

Fluency

Find three numbers that make these number sentences correct.

1) d + c – a = 57

2) b – a - n = 53

3) k + l – c = 28

4) d + c + d = 20

5) a + c + a = 29

6) X and Y are whole numbers. X is a one digit number. Y is a two digit number. X + Y = 27

Find all the possible pairs of numbers that satisfy the equation.

Reasoning

1) Robert is solving the equation a + b = 18. A and b are both positive, whole numbers. Robert says "a and b must both always be less than 18."
Do you agree? Explain your reasoning.

2) John is finding a pair of numbers to fit the equation: 2a + b = 15.
Both letters represent whole numbers. John says "One of the numbers must be odd and one must be even." Do you agree with John? Show your reasoning.

Problem Solving

1) A and b stand for whole numbers. A + b = 1000 and a is 150 greater than b. Work out the values of a and b.

2) X and y are both positive whole numbers. When multiplied together they make an odd number under 20. What could x and y be? How many combinations can you find?

Algebra Answers 3

Practise

Find numbers that make the following calculations correct:

1) Answers will vary

2) Answers will vary

3) Answers will vary

4) Answers will vary

5) Answers will vary

6) Answers will vary

Fluency

Find three numbers that make these number sentences correct.

1) Answers will vary

2) Answers will vary

3) Answers will vary

4) Answers will vary

5) Answers will vary

6) 18 + 9, 19 + 8, 20 + 7, 21 + 6, 22 + 5, 23 + 4, 24 + 3, 25 + 2, 26 + 1

Reasoning

1) Yes – reasoning vary but allude to fact that they are positive meaning two numbers need to be lower than 18 to add to it.

2) Disagree – Proof that both can be odd e.g. x 3 and + 9

Problem Solving

1) 575 and 425

2) Any two numbers under 20 that multiply to make an odd number under 20