

Algebra

Task 1

If $a = 5$, $b = 3$ and $c = 1$, solve these equations;

1. $3a + b =$
2. $2b - c =$
3. $a + 3b =$
4. $2b - 2c =$
5. $a - b - c =$
6. $5b + 7c =$
7. $4a \div 2 =$
8. $10c \times 10 =$
9. $6b + 3c + 8a$

Task 2

Simplify these equations;

Example - $a + a + a$ simplified is $3a$. $c + c - f$ simplified is $2c - f$

10. $h + h + h + h =$
11. $3 \times f =$
12. $b \times b \times b =$
13. $g + g - g =$
14. $d + f + d + f =$
15. $(a + a + a) \times (b + b)$
16. $d \times f \times d \times f =$

Task 3

If $X = 9$, what is Y ?

17. $X + Y = 13$
18. $Y + X = 18$
19. $2X + Y = 20$
20. $2X + Y = 25$
21. $3X + Y = 50$

Algebra (answers)

Task 1

If $a = 5$, $b = 3$ and $c = 1$, solve these equations;

1. $3a + b = 18$ 2. $2b - c = 5$ 3. $a + 3b = 14$

4. $2b - 2c = 4$ 5. $a - b - c = 1$ 6. $5b + 7c = 22$

7. $4a \div 2 = 10$ 8. $10c \times 10 = 100$ 9. $6b + 3c + 8a = 61$

Task 2

Simplify these equations;

Example - $a + a + a$ simplified is $3a$. $c + c - f$ simplified is $2c - f$

10. $h + h + h + h = 4h$ 11. $3 \times f = 3f$ 12. $b \times b \times b = b^3$

13. $g + g - g = g$ 14. $d + f + d + f = 2d + 2f$ 15. $(a + a + a) \times (b + b) = 6ab$

16. $d \times f \times d \times f = d^2f^2$

Task 3

If $X = 9$, what is Y ?

17. $X + Y = 13$ $Y = 4$ 18. $Y + X = 18$ $Y = 9$ 19. $2X + Y = 20$ $Y = 2$

20. $2X + Y = 25$ $Y = 7$ 21. $3X + Y = 50$ $Y = 23$

Challenge

Have a go at making up some algebraic equations of your own. Choose one of the ways above to do it. We will test them at the end of the lesson so make sure that you know the answers!