ALGEBRAIC SUBSTITUTION REVISION

Steps

Copy the expression

Substitute numbers for letters.

Use BODMAS to evaluate.

Exercise

Given that $a = 2$, $b = 3$, $c = 5$ and $d = 10$, evaluate:

1.	$a + b$	2.	$a + b + c$	3.	$d - c$
4.	$a + b - c + d$	5.	$4a$	6.	$6b$
7.	ab	8.	$2cd$	9.	abc
10.	$3a + 4$	11.	$6b - 7$	12.	$5a + 3b$
13.	$4c + 3d$	14.	$5a + 4b - 3c$	15.	$\frac{d}{2}$
16.	$\frac{6c}{3}$	17.	$\frac{cd}{a}$	18.	$\frac{c+d}{b}$
19.	b^2	20.	$a^2 + b^2$	21.	$(a + b)^2$
22.	$4d^2$	23.	$\frac{1}{2}c^2$	24.	$\frac{2}{3}(a + c^2)$
25.	$\frac{a^2 - c^2}{b}$				

ANSWERS

Given that $a = 2$, $b = 3$, $c = 5$ and $d = 10$, evaluate:

1. $a + b$
   $2 + 3$
   5

2. $a + b + c$
   $2 + 3 + 5$
   10

3. $d - c$
   $10 - 5$
   5

4. $a + b - c + d$
   $2 + 3 - 5 + 10$
   10

5. $4a$
   4×2
   8

6. $6b$
   6×3
   18

7. ab
   2×3
   6

8. $2cd$
   $2 \times 5 \times 10$
   100

9. abc
   $2 \times 3 \times 5$
   30

10. $3a + 4$
    $3 \times 2 + 4$
    $6 + 4$
    10

11. $6b - 7$
    $6 \times 3 - 7$
    $18 - 7$
    11

12. $5a + 3b$
    $5 \times 2 + 3 \times 3$
    $10 + 9$
    19

13. $4c + 3d$
    $4 \times 5 + 3 \times 10$
    $20 + 30$
    50

14. $5a + 4b - 3c$
    $5 \times 2 + 4 \times 3 - 3 \times 5$
    $10 + 12 - 15$
    7

15. $\frac{d}{2}$
    $\frac{10}{2}$
    5

16. $\frac{6c}{3}$
    $\frac{6 \times 5}{3}$
    $\frac{30}{3}$
    10

17. $\frac{cd}{a}$
    $\frac{5 \times 10}{2}$
    $\frac{50}{2}$
    25

18. $\frac{c + d}{b}$
    $\frac{5 + 10}{3}$
    $\frac{15}{3}$
    5

19. b^2
    3^2
    9

20. $a^2 + b^2$
    $2^2 + 3^2$
    $4 + 9$
    13

21. $(a + b)^2$
    $(2 + 3)^2$
    $(5)^2$
    25

22. $4d^2$
    4×10^2
    4×100
    400

23. $\frac{1}{2}c^2$
    $\frac{1}{2} \times 5^2$
    $\frac{1}{2} \times 25$
    $12{\cdot}5$

24. $\frac{2}{3}(a + c^2)$
    $\frac{2}{3}(2 + 5^2)$
    $\frac{2}{3}(2 + 25)$
    $\frac{2}{3}(27)$
    18

25. $\frac{d^2 - c^2}{b}$

$\frac{10^2 - 5^2}{3}$

$\frac{100 - 25}{3}$

$\frac{75}{3}$

25