ILLAWARRA TUTORING

This worksheet will help you develop your substitution skills by replacing variables with numerical values in order to evaluate algebraic expressions. Read each question carefully and substitute the given values into the expression.

Easy Questions

1. Evaluate $2a + 3$ when $a = 5$.
2. Evaluate $a + b$ when $a = 3$ and $b = 4$.
3. Evaluate $3x - 2$ when $x = -1$.
4. Evaluate $4y + 12$ when $y = 2$.
5. Evaluate $5 - 3z$ when $z = 7$.

Intermediate Questions

6. Evaluate $2(p + 4)$ when $p = 3$.
7. Evaluate $3(2q - 1)$ when $q = 4$.
8. Evaluate $\dfrac{3y + 1}{2}$ when $y = 5$.
9. Evaluate $5a^2$ when $a = 3$.
10. Evaluate $\dfrac{4k - 2}{3}$ when $k = 8$.
11. Evaluate $\dfrac{2m + 3n}{5}$ when $m = 4$ and $n = 6$.
12. Evaluate $7 - 2(r + 3)$ when $r = 5$.
13. Evaluate $3(2t + 4) - 5$ when $t = 2$.
14. Evaluate $\dfrac{3(x + 2) - 2(x - 1)}{x}$ when $x = 3$.
15. Evaluate $\dfrac{4z - 6}{2} + 1$ when $z = 5$.
16. Evaluate $2a + 3b$ when $a = 3$ and $b = -2$.
17. Evaluate $(5c - 4)^2$ when $c = 2$.

18. Evaluate $\dfrac{2d^2 - 3d + 1}{d}$ when $d = 1$.

19. Evaluate $4e - (3e + 2)$ when $e = 6$.

20. Evaluate $6 - 2(3f - 4)$ when $f = 3$.

Hard Questions

21. Evaluate $\dfrac{2p^2 - 3p + 5}{p - 1}$ when $p = 3$.

22. Evaluate $\dfrac{3a + 4b - c}{2}$ when $a = 2$, $b = -1$ and $c = 5$.

23. Evaluate $2(3x - 4) + 5(x + 2)$ when $x = -3$.

24. Evaluate $\dfrac{4(y + 3) - 2(3y - 2)}{y}$ when $y = 4$.

25. Evaluate $\dfrac{2k^2 - 5k + 3}{k + 1}$ when $k = 2$.

26. Evaluate $5(2t - 3) - 3(4t - 1)$ when $t = 4$.

27. Evaluate $(2m + 3) - \dfrac{4(m - 1)}{2}$ when $m = 7$.

28. Evaluate $\dfrac{3n^2 - 6n + 9}{n - 2}$ when $n = 5$.

29. Evaluate $4(2z + 1) + 3(5z - 2)$ when $z = -1$.

30. Evaluate $\dfrac{2x^2 - x - 6}{x + 2}$ when $x = 2$.