



SUBSTITUTION

NEGATIVES OF NEGATIVES

Ref: G202. **3R1**

<p>A1 $a = 3, b = 2, c = 5$ Evaluate</p> $3a + bc$	<p>A2 $d = 7, e = 4, f = 13$ Evaluate</p> $e(f - d)$	<p>A3 $x = 5, y = 3, z = 6$ Evaluate</p> $x^2 - \frac{y}{z}$	<p>A4 $m = 10, t = 2$ Given that</p> $G = \frac{m}{t^2 - 1}$ <p>Find G</p>
<p>B1 $a = 2, b = 6, c = -3$ Evaluate</p> $ab + 2c$	<p>B2 $e = -1, f = 4$ Evaluate</p> $7(f - e)$	<p>B3 $p = -3, q = 2, r = 7$ Evaluate</p> $p^2 + 2q - pr$	<p>B4 $p = 2, q = 8, r = -7$ Given that</p> $t = pq + r$ <p>Find t</p>
<p>C1 $a = -3, b = 5, c = -2$ Evaluate</p> $a^2 - bc$	<p>C2 $a = 3, b = -4, c = -1$ Evaluate</p> $ab + bc - ac$	<p>C3 $p = -5, q = -4$ Evaluate</p> $pq - \frac{p}{q}$	<p>C4 $a = -3, b = -8, c = -5$ Given that</p> $M = a^2 + \sqrt{\frac{4b - c}{a}}$ <p>Find M</p>
<p>D1 $s = -2, t = 11$ Given that</p> $H = \frac{(t - 3)^2}{s^3 + 20}$ <p>Find H</p>	<p>D2 $a = -7, d = 4, n = 21$ Given that</p> $S = \frac{n}{2}[2a + (n - 1)d]$ <p>Find S</p>	<p>D3 $a = -10, u = 35, t = 3$ Given that</p> $s = ut + \frac{1}{2}at^2$ <p>Find s</p>	<p>D4 $a = -3, b = 7, c = -2$ Given that</p> $x = \frac{-b - \sqrt{b^2 - 4ac}}{2a}$ <p>Find x</p>



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Ref: G202. **3R1**

<p>A1 $a = 3, b = 2, c = 5$</p> $3a + bc = 3(3) + (2)(5)$ $= 9 + 10$ $= 19$	<p>A2 $d = 7, e = 4, f = 13$</p> $e(f - d) = 4(13 - 7)$ $= 4 \times 6$ $= 24$	<p>A3 $x = 5, y = 3, z = 6$</p> $x^2 - \frac{y}{z} = (5)^2 - \frac{3}{6}$ $= 25 - 0.5$ $= 24.5$	<p>A4 $m = 10, t = 2$</p> $G = \frac{m}{t^2 - 1}$ $= \frac{10}{(2)^2 - 1}$ $= 3.3$
<p>B1 $a = 2, b = 6, c = -3$</p> $ab + 2c = (2)(6) + 2(-3)$ $= 12 - 6$ $= 6$	<p>B2 $e = -1, f = 4$</p> $7(f - e) = 7(4 - (-1))$ $= 7(5)$ $= 35$	<p>B3 $p = -3, q = 2, r = 7$</p> $p^2 + 2q - pr = (-3)^2 + 2(2) - (-3)(7)$ $= 9 + 4 + 21$ $= 34$	<p>B4 $p = 2, q = 8, r = -7$</p> $t = pq + r$ $= (2)(8) + (-7)$ $= 16 - 7$ $= 9$
<p>C1 $a = -3, b = 5, c = -2$</p> $a^2 - bc = (-3)^2 - (5)(-2)$ $= 9 + 10$ $= 19$	<p>C2 $a = 3, b = -4, c = -1$</p> $ab + bc - ac$ $= (3)(-4) + (-4)(-1) - (3)(-1)$ $= -12 + 4 + 3$ $= -5$	<p>C3 $p = -5, q = -4$</p> $pq - \frac{p}{q} = (-5)(-4) - \frac{(-5)}{(-4)}$ $= 20 - 1.25$ $= 18.75$	<p>C4 $a = -3, b = -8, c = -5$</p> $M = a^2 + \sqrt{\frac{4b - c}{a}}$ $= (-3)^2 + \sqrt{\frac{4(-8) - (-5)}{(-3)}} = 12$
<p>D1 $s = -2, t = 11$</p> $h = \frac{(t - 3)^2}{s^3 + 20}$ $= \frac{(11 - 3)^2}{(-2)^3 + 20} = 5.3$	<p>D2 $a = -7, d = 4, n = 21$</p> $S = \frac{n}{2} [2a + (n - 1)d]$ $= \frac{21}{2} \times [2(-7) + (21 - 1)(4)]$ $= 693$	<p>D3 $a = -10, u = 35, t = 3$</p> $s = ut + \frac{1}{2}at^2$ $= (35)(3) + \frac{1}{2}(-10)(3)^2 = 60$	<p>D4 $a = -3, b = 7, c = -2$</p> $x = \frac{-b - \sqrt{b^2 - 4ac}}{2a}$ $= \frac{-(-7) - \sqrt{(7)^2 - 4(-3)(-2)}}{2(-3)} = 2$