

NAME: _____

- If $S(k) = k^2 + k + 4$ and $T(k) = k - 6$, find $S(k) + T(k)$.
[A] $k^2 + 10$ [B] $k^2 + 2k + 10$
[C] $k^2 + 2k - 2$ [D] $k^2 + k - 2$
- If $P(h) = h^2 + h + 2$ and $Q(h) = h + 5$, find $P(h) + Q(h)$.
[A] $h^2 - 3$ [B] $h^2 + 2h - 3$
[C] $h^2 + 2h + 7$ [D] $h^2 + h + 7$
- Let $f(x) = 1 - x^2$, $g(x) = 1 - x$. Find $(fg)(x)$.
[A] $x^3 - x^2 - x + 1$ [B] $x^3 + 2x^2 + 2$
[C] $-x^2 - x + 2$ [D] $-x^2 + x$
- Let $f(x) = 4 - x^2$, $g(x) = 2 - x$. Find $(fg)(x)$.
[A] $x^3 + 6x^2 + 2x - 2$ [B] $x^3 - 2x^2 - 4x + 8$
[C] $-x^2 + x + 2$ [D] $-x^2 - x + 6$
- Given $f(x) = 4 - x^2$ and $(f - g)(x) = -x^2 + x + 2$, find the function g .
[A] $g(x) = -x - 2$
[B] $g(x) = -x^2 - x + 6$
[C] $g(x) = 2x^2 + 6$ [D] none of these
- Given $f(x) = 1 - x^2$ and $(f + g)(x) = -x^2 - x + 2$, find the function g .
[A] $g(x) = 2x^2 + 2$ [B] $g(x) = x$
[C] $g(x) = -x - 1$ [D] none of these
- If $S(s) = s^2 + s + 1$ and $T(s) = s - 5$, find $S(s) + T(s)$.
- If $Q(u) = u^2 - u - 2$ and $R(u) = u - 4$, find $Q(u) + R(u)$.
- If $R(a) = a^2 + a - 3$ and $S(a) = a + 6$, find $R(a) + S(a)$.
- If $S(w) = w^2 - w + 5$ and $T(w) = w - 3$, find $S(w) + T(w)$.

[1] C

[2] C

[3] A

[4] B

[5] D

[6] D

[7] $s^2 + 2s - 4$

[8] $u^2 - 6$

[9] $a^2 + 2a + 3$

[10] $w^2 + 2$