السؤال الاول :

1) ج - ب ا

2) b (الأ)

3) b (7)

4) a (2)

5) d ($5x - 3x^5$)

6) a ($y = x$)

7) c (-3)

8) b (5)

1) $g(x) + f(x)$

$4x + 2 + 3x^2 + 5x - 9$

$$3x^2 + 9x - 7$$

2) $f(x) - g(x)$

$3x^2 + 5x - 9 - (4x + 2)$

$3x^2 + 5x - 9 - 4x - 2$

$$3x^2 + x - 11$$

3) $f(x) \cdot g(x)$

$(3x^2 + 5x - 9)(4x + 2)$

$12x^3 + 26x^2 - 26x - 18$

السؤال الثاني

$$(x-2)\overline{)\,2x^3-3x^2+5x-6}\quad \Rightarrow\quad 2x^2+x+7$$

$$2x^3-4x^2$$
$$x^2+5x-6$$
$$x^2-2x$$
$$7x-6$$
$$7x-14$$
$$8$$

$$(2x^2+x+7)+\frac{8}{x-2}$$

السؤال الرابع

$$(x+3)\overline{)\,3x^3-8x^2+16x+(K-32)}\quad \Rightarrow\quad 3x^2-17x+67$$

$$3x^3+6x^2$$
$$-8x^2+Kx-20$$
$$-8x^2-16x$$
$$16x^2+Kx-20$$
$$16x^2+32x$$
$$Kx-32x-20$$
$$x(K-32)-20$$
$$x(K-32)+2(K-32)$$

(1) ⇐

$$-20-2(K-32)=0$$
$$\frac{-20}{2}=\frac{2(K-32)}{2}$$
$$-10=K-32$$
$$+32\qquad +32$$
$$K=22$$

(2)

$$-20-2K+64=0$$
$$-2K+64=20$$
$$-2K=-44$$
$$\frac{-2K}{-2}=\frac{-44}{-2}$$
$$K=22$$

السؤال الثامن

$s(t) = t^2 - 4t + 3$

① بعد البداية

$t = 0$

$s(0) = 0^2 - 0 + 3$

$s(t) = 3$

② بعد (5) ثوانٍ

$s(5) = (5)^2 - 4(5) + 3$

$= 25 - 20 + 3$

$= 5 + 3$

③ $s(t) = 0$

$t^2 - 4t + 3 = 0$

$(t - 3)(t - 1)$

$t = 3$ $\quad$ $t = 1$

④ $s(t) = 3$

$t^2 - 4t + 3 = 3$

$-3 \quad -3$

$t^2 - 4t = 0$

$t(t - 4) = 0$

$t = 0$ $\quad$ $t = 4$