Set 4, Qu 26, 28, 30 16/3/15

(26) $\dfrac{2x^2 - 18}{5x + 15}$

$= \dfrac{2(x^2 - 9)}{5(x + 3)}$

$= \dfrac{2(x - 3)(x + 3)}{5(x + 3)}$

$= \dfrac{2(x - 3)}{5}$

(28) $\dfrac{2x^2 + 7x + 6}{x^3 - 4x}$

$= \dfrac{(2x + 3)(x + 2)}{x(x^2 - 4)}$

$= \dfrac{(2x + 3)(x + 2)}{x(x - 2)(x + 2)}$

$= \dfrac{2x + 3}{x(x - 2)}$

(30) $\dfrac{5p^{-3} \times 4p^2}{2p^{-5}}$

$= \dfrac{20p^{-1}}{2p^{-5}}$

$= 10p^{(-1-(-5))}$

$= 10p^{(-1+5)}$

$= 10p^4$

Set 5 Qu 16, 19, 20, 24, 29 16/3/15

(16) $x^3y - 4y$

$= (-2)^3 \times (-4) - 4 \times (-4)$

$= -8 \times (-4) - 4 \times (-4)$

$= 32 + 16$

$= 48$

(19) $p^3q^2 - 16pq^2$

$= pq^2(p^2 - 16)$

$= pq^2(p - 4)(p + 4)$

(20) $\dfrac{2}{2x-1} - \dfrac{5}{x}$

$= \dfrac{2x}{x(2x-1)} - \dfrac{5(2x-1)}{x(2x-1)}$

$= \dfrac{2x - 5(2x-1)}{x(2x-1)}$

$= \dfrac{2x - 10x + 5}{x(2x-1)}$

$= \dfrac{5 - 8x}{x(2x-1)}$

(24) $(x-3)(x+4)(x-1)$

$= (x-3)(x^2 - x + 4x - 4)$

$= (x-3)(x^2 + 3x - 4)$

$= x^3 + 3x^2 - 4x - 3x^2 - 9x + 12$

$= x^3 - 13x + 12$

(29) $x^{2/3}(x^{1/3} + x^{-2/3})$

$= x^{3/3} + x^0$

$= x^1 + 1$

$= x + 1$