Questions

1. Perform the operators if any, and simplify

   (a) $\frac{6x^3}{2x}$

   (b) $(4x - 1)^2 - (2x - 3)^2$

   (c) $\frac{24x^{-3}y^4}{6x^2y^{-3}}$

   (d) $\sqrt[3]{16a^4b^9c^8}$

   (e) $\frac{4x}{2x-3} + \frac{5x}{x-5}$

2. Factor

(a) $5x + 20$

(b) $x^2 + 7x + 12$

(c) $x^2 + 6x + 5$

(d) $(x - 3)(a + b) + (x - 3)(a + 2b)$ where a, b are constants

(e) $6x^2 + xy - 40y^2$

(f) $3x^3 + x^2 + 6x + 2$

(g) $x^4 + x^2 - 20$

(h) $4x^5 - 4x^3 - 8x$