Problem 1: Fraction

Calculate and simplify as far as possible.

a. $\frac{3}{8} - \frac{1}{5}$

b. $\frac{10}{\frac{1}{2} \cdot 1\frac{2}{5}}$

Problem 2: Manipulation of variables

Process and simplify as far as possible, without broken or negative exponents.

a. $\frac{(ab^2)^3}{\sqrt{a^2 b^{10}}}$

Expand brackets and simplify as far as possible

b. $(x+1)^2(x-2)$

Problem 3: Functions

Line l intersects the points A(2,5) and B(5,-1). Write the formula for line l.

Problem 4: Equation

Solve the following equations

a. $x^2 + 3x - 2 = 4x - 1$

b. $x^3 - 7x^2 + 12x = 0$