Algebra 4: Junior Cycle Fractions Revision

PREREQUISITE KNOWLEDGE:
Junior Cycle Algebra

Questions for class

Example 1
Simplify:

$$\frac{(h-1)}{2} - \frac{(h-2)}{5}$$

Example 2
Simplify:

$$\frac{\frac{(x^2+7x+12)}{(4x-2)}}{\frac{(x+4)}{2}}$$

Example 3
Solve:

$$\frac{x}{(2x-3)} + \frac{4}{(x+1)} = 1$$

Example 4
Simplify, without using a calculator:

$$\frac{5}{3-\sqrt{2}}$$

Questions from GKTuition tutorial

Example 1
Simplify:

$$\frac{3}{4} + \frac{x}{3}$$

Example 2
Simplify:

$$\frac{\frac{(x+3)}{(2x+7)}}{\frac{(x+3)}{(4x+14)}}$$

Example 3
Solve for x:

$$\frac{x}{(x-1)} + \frac{1}{(x+1)} = 1$$

Example 4
Simplify, without using a calculator:

$$\frac{4}{2-\sqrt{3}}$$

Questions for class

Question 1
Simplify:

(i) $\dfrac{\frac{1}{x^2}-4}{\frac{1}{x}-2}$

(ii) $\dfrac{10}{(2x^2-3x-2)}-\dfrac{2}{(x-2)}$

(iii) $\dfrac{3}{\sqrt{5}-2}$

Question 2
Solve:

(i) $\dfrac{4}{(x+2)}-\dfrac{3}{(x+8)}=1$

(ii) $\dfrac{(6x-1)}{4}-\dfrac{(5-2x)}{2}=1$

Questions from GKTuition tutorial

Question 1
Simplify:

(i) $\dfrac{(a+b)}{\frac{1}{a}+\frac{1}{b}}$

(ii) $\dfrac{(27x^3+125)}{(9x^2+30x+25)}$

(iii) $\dfrac{-4}{(-3+\sqrt{5})}$

Question 2
Solve:

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

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