Essential Skills 4

The questions in this series of worksheets appear frequently.

These are the GIFTS you must take to succeed

<u>Algebraic Fractions</u> (Non Calculator)

Write as a fraction in its simplest form:

1.
$$\frac{3}{x+4} + \frac{2}{x+1}$$
 2. $\frac{4}{x-5} + \frac{3}{x+2}$

3.
$$\frac{1}{x+2} - \frac{3}{x+7}$$
 4. $\frac{6}{2x-1} - \frac{2}{x-1}$

5.
$$\frac{2}{x+3} - \frac{2}{3x+1}$$
 6. $\frac{x-3}{5} + \frac{x+2}{2}$

7.
$$\frac{2b+3}{3} - \frac{b}{5}$$
 8. $\frac{1}{p-1} + \frac{3}{3p+5}$

9.
$$\frac{3x-1}{3} - \frac{2x-3}{2}$$
 10. $\frac{1}{x} + \frac{3}{x^2}$

APPLYING QUESTION

A cyclist cycling on difficult terrain was able to cover x km at 4 km/h

(a) Write an expression in terms of x for time of his journey.

On the return leg they took a more favourable route with 3 additional km. They were able to cycle at a speed of 6km/h

(b) Work out, as a single fraction in terms of x, the **total** time for the whole journey.



