14 Show that $\frac{x^2 - x - 6}{2x^2 - 5x - 3}$ can be written in the form $\frac{ax + b}{cx + d}$ where a, b, c and d are integers.

PL14A

(Total for Question 14 is 3 marks)

15 Here are the first four terms of a quadratic sequence.

3 9 17 27

Find an expression, in terms of n, for the nth term of this sequence.

PL15A

(Total for Question 15 is 3 marks)

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20 Write

$$\frac{14}{3x-21}+\left[(x+4)\div\frac{2x^2-6x-56}{2x+3}\right]$$ in the form $\frac{ax+b}{cx+d}$ where a, b, c and d are integers.

PP20A

.....

(Total for Question 20 is 4 marks)

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19 Show that $\frac{3x}{x+2} - \frac{2x+1}{x-2} - 1$ can be written in the form $\frac{ax+b}{x^2-4}$ where a and b are integers.

PF19A

(Total for Question 19 is 4 marks)

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13 Show that $6 + \left[(x + 5) \div \frac{x^2 + 3x - 10}{x - 1}\right]$ simplifies to $\frac{ax - b}{cx - d}$ where a, b, c and d are integers.

KY13A

(Total for Question 13 is 4 marks)

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22 $\frac{2x+3}{x-5} + \frac{x-4}{x+5} - 3$ can be written in the form $\frac{ax+b}{x^2-25}$ where a and b are integers.

Work out the value of a and the value of b.
You must show all your working.

PJ22A

$a =$ .....

$b =$ .....

(Total for Question 22 is 3 marks)

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17 Simplify fully $\dfrac{3x^2 - 8x - 3}{2x^2 - 6x}$

BH17A

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(Total for Question 17 is 3 marks)

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