

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

Circle your answer.

[1 mark]

$$\frac{7}{x}$$

$$\frac{7}{2x}$$

$$\frac{12}{x}$$

$$\frac{12}{x^2}$$

2

$$d = 2f$$

$$\frac{e-f}{d-e} = \frac{1}{4}$$

Work out the ratio $e : f$ **[3 marks]**

Answer _____ : _____

3

The flight of a plane was in two stages.

The table shows information about the flight.

	Distance (miles)	Speed (mph)	Time (hours)
1st stage	731	x	$\frac{731}{x}$
2nd stage	287	$x - 24$	$\frac{287}{x - 24}$

In total, the flight lasted 2 hours.

Work out the value of x .

[5 marks]

[illegible]

Answer _____

4 (a) Simplify fully $\frac{6}{a} - \frac{11}{4a}$

[2 marks]

Answer _____

4 (b) Simplify fully $(y^2 - 3y) \times \frac{y^2 + 10y + 21}{y^2 - 9}$

[4 marks]

Answer _____

Show that $\frac{x-5}{x-2} + \frac{x+5}{x+2}$

simplifies to $\frac{ax^2-b}{x^2-4}$ where a and b are integers.

[3 marks]

Simplify fully $\frac{2}{x+1} + \frac{7-5x}{3} + 4x$

[4 marks]

[illegible]

Answer