

M4 = 45 days to go!

10 Solve

$$\frac{a-1}{4} + \frac{a+1}{8} = \frac{3}{2}$$

Give your answer as a mixed number.

Change all to the same denominator

$$\frac{a-1}{4} + \frac{a+1}{8} = \frac{3}{2}$$

$$\frac{2(a-1)}{8} + \frac{a+1}{8} = \frac{12}{8}$$

Then get rid of the denominators

$$2(a-1) + a+1 = 12$$

$$2a - 2 + a + 1 = 12$$

$$3a - 1 = 12$$

$$3a = 12 + 1$$

$$3a = 13$$

$$a = \frac{13}{3}$$

$$a = 3\frac{1}{3}$$

Answer $a = 3\frac{1}{3}$ [4]

11 Write down the equation of a line parallel to the line with equation $y = 3x + 5$

Answer $y = 3x + 1$ [2]

$y = mx + c$ is the equation of a straight line

Parallel to $y = 3x + 5$

The gradient must be 3.

$$y = 3x + c$$

Usually we have to calculate the y intercept

But in this question we can have

$$y = 3x + \text{anything}$$

So

$$y = 3x + 1$$

$$y = 3x + 100$$

$$y = 3x - 5$$

etc.