

## Question 11 – 5:

|       |   |           |  |
|-------|---|-----------|--|
| 11(a) | $\frac{48}{x}$ final answer                                       | <b>1</b>  | Accept $48 \div x$   |
| 11(b) | $their(a) - \frac{60}{x+2} = 4$ oe                                | <b>M1</b> | FT <i>their</i> (a) provided expression in $x$   |
|       | $48(x+2) - 60x = 4x(x+2)$ oe                                      | <b>M2</b> | <b>FT</b> <i>their</i> 3 term eqn with algebraic denominators, $x$ and $x+2$ , for M2 or M1<br><br><b>M1</b> for common denominator $x(x+2)$ oe seen<br><br>or any two terms in a 3 term equation from $\pm 48(x+2)$ , $\pm 60x$ , $\pm 4x(x+2)$ oe seen |
|       | $48x + 96 - 60x = 4x^2 + 8x$ oe<br>leading to $x^2 + 5x - 24 = 0$ | <b>A1</b> | With brackets expanded and no errors or omissions seen   |
| 11(c) | $(x-3)(x+8)$  | <b>B2</b> | <b>B1</b> for $x(x+8) - 3(x+8)$<br>or $x(x-3) + 8(x-3)$<br>or $(x+a)(x+b) [= 0]$<br>where $ab = -24$ or $a+b = 5$ [ $a, b$ integers]   |
|       | 3 and -8  | <b>B1</b> |  |
| 11(d) | 12  | <b>1</b>  |  |