

Expand the following:

|                      |                         |
|----------------------|-------------------------|
| 1) $(a + 8)(a + 7)$  | 2) $(3e + 11)(4e - 11)$ |
| 3) $(b + 12)(b + 4)$ | 4) $(3f - 7)(5f - 7)$   |
| 5) $(c + 7)(c - 3)$  | 6) $(g + 8)^2$          |
| 7) $(2d + 5)(d + 1)$ | 8) $(3h - 12)^2$        |

Expand the brackets and simplify where appropriate.

- |                          |                            |                            |
|--------------------------|----------------------------|----------------------------|
| 1) $4(x + 3)$            | 2) $6(x - 3)$              | 3) $5(x - 4)$              |
| 4) $5(2x - 4)$           | 5) $7(4x + 1)$             | 6) $2(3 - 5x)$             |
| 7) $3(x + 2) + 2(x + 4)$ | 8) $5(3x + 2) + 4(2x - 1)$ | 9) $4(3 + 5x) + 3(1 - 3x)$ |

For each question, expand any brackets and solve the equation. You should be able to find your answer in the grid below.

- |                                |                               |                                  |
|--------------------------------|-------------------------------|----------------------------------|
| 1) $5(x + 3) = 21$             | 2) $6(2x - 2) = 8$            | 3) $5(1 + 2x) = 6$               |
| 4) $3(4x - 4) + 3x = 13$       | 5) $-2(3 - 2x) + 3 = 5$       | 6) $4x + 2(3 - 5x) = 20$         |
| 7) $3(2x + 3) + 2(4x - 3) = 7$ | 8) $6(x + 2) + 4(3 - x) = 30$ | 9) $5(3x - 1) - 2(3x - 1) = -11$ |
| 10) $5(2x + 3) = 2x + 8$       | 11) $4(x + 2) = 2(x - 1)$     | 12) $4(x + 3) = -5(x - 1)$       |

|                |                |               |                |               |                |
|----------------|----------------|---------------|----------------|---------------|----------------|
| 2              | $-\frac{8}{9}$ | $\frac{2}{7}$ | -5             | $\frac{6}{5}$ | $-\frac{7}{3}$ |
| $-\frac{7}{8}$ | $\frac{5}{3}$  | $\frac{5}{3}$ | $-\frac{7}{9}$ | 3             | $\frac{1}{10}$ |