

## S4 National 4 Homework

Week 10

### Monday

Fully factorise the following:

1.  $5a - 15$
2.  $12m + 15n$
3.  $4ab + 8b$
4.  $x^2 - 4$
5.  $a^2 - 81$
6.  $25 - w^2$
7.  $x^2 + 8x + 15$
8.  $m^2 + 7m + 12$

### Tuesday

Fully factorise the following:

1.  $15a - 20$
2.  $4y - 20z$
3.  $a^2 - 9$
4.  $49 - k^2$
5.  $x^2 - x - 12$
6.  $b^2 + 13b + 30$
7.  $p^2 + 2p - 8$
8.  $x^2 + 9x + 14$

### Thursday

Solve the following:

1.  $2x + 6 = 20$
2.  $3a - 2 = 10$
3.  $2x + 7 = x + 19$
4.  $4m - 2 = 2m + 9$
5.  $3(x + 2) = 2(x + 6)$
6.  $2(2a - 1) = 2(a + 5)$
7.  $5(m - 1) = 2(m - 6)$
8.  $3(2x + 5) = 2(x - 7)$

### Extension

Solve the following:

1.  $3(x + 6) = 2(x - 5)$
2.  $4(x - 1) = 2(x + 6)$
3.  $3(x + 4) = 2(x - 8)$
4.  $2(x + 5) = 3(x + 7)$
5.  $3(x - 1) = 2(2x + 7)$
6.  $2(x - 1) = 2(2x + 9)$
7.  $3(x + 2) = 3(2x - 7)$
8.  $5(a - 1) = 2(a + 6)$