

## ▪ Factoring

1.  $x^2 - x - 6$
2.  $x^2 + 3x - 40$
3.  $x^2 - x - 20$
4.  $x^2 + 11x + 18$
5.  $x^2 - 15x + 56$
6.  $2x^2 - x - 15$
7.  $5x^2 - 14x + 8$
8.  $4x^2 - 9x + 5$
9.  $5x^2 - 32x + 12$
10.  $6x^2 + 11x - 10$
11.  $x^2 - 1$
12.  $9x^2 - 16$
13.  $4x^2 - 25$
14.  $x^2 - 36$
15.  $9x^2 - 1$

## ▪ Solving linear equations

1.  $5x + 1 = 12$
2.  $9 - 2x = 15$
3.  $3(x - 2) = 6$
4.  $4(x - 3) - 5(x + 1) = 1$
5.  $-12 = 3(2x - 8)$
6.  $2x + 6 = 3x + 9$
7.  $-2(4 - x) = 6(x + 2) + 3x$
8.  $8x - 5 = -4x + 19$

## ▪ Simplifying exponential expressions

1. Simplify:  $x^2 \cdot x^5$
2. Simplify:  $\frac{x^6}{x^8}$
3. Simplify:  $(5x)^3$
4. Simplify:  $\frac{16x^2}{4x^5}$
5. Simplify:  $\left(\frac{2x^3}{6x}\right)^2$
6. Evaluate:  $4^0$
7. Evaluate:  $-3^0$
8. Rewrite without negative exponents:  $3x^{-4}$
9. Rewrite without negative exponents:  $\frac{2}{3x^{-5}}$
10. Rewrite without negative exponents:  $(2x)^{-3}$