

1. Factorise
 - a. $2x + 5x^2$
 - b. $8a^2 + 5a$
 - c. $p + 4p^2$
 - d. $6g^2 - 3g$
 - e. $4y + 3y^2$

2. Simplify and factorise
 - a. $3a^2 - 9a$
 - b. $2n^2 + 3n - 5n$
 - c. $4x - 2x^2 - x^2 - 5x$
 - d. $-7g - 28g^2$
 - e. $6a^2 - 2a + 5a - a$

3. Write in factorised form
 - a. $6ab - 2da + 4af$
 - b. $7xy + 4x^2 - 3x$
 - c. $6g^2 - 3gf + 6g$
 - d. $-35as - 7sa^2$
 - e. $5xy^2 - 3x^2y$

4. Factorise fully
 - a. $-6a^2bc + 2ab^2c - 3abc^2$
 - b. $-3d^2b - db + 5db^2$
 - c. $25t^2 - 5$
 - d. $-4s^3tv + 8s^2tv^2 - 12s^2tv$
 - e. $5xy^3 - 3y^2x + 4x^2y$

5. Factorise the expression
 - a. $4nm^2 + 2n^2 - 2mn$
 - b. $3a^2 + 5ab$
 - c. $5x^4 + x^2$
 - d. $3x^3y - 4x^2y$
 - e. $5a^3b^2c + 5ab^2c^2 - 10a^3bc$

6. Factorise
 - a. $5x^3 + 2x^6 + 4x^2$
 - b. $-7p - 5pm^3 - 2p^2$
 - c. $a^9 - 8a^6$
 - d. $3x^4yz + 2x^3y^2z - yx^4y^3z^2$
 - e. $6t^2 - 3ts^2 + st^2$

7. Factorise in full
 - a. $a^2 + 5a + 4$
 - b. $x^2 + 4x + 4$
 - c. $t^2 + 7t + 12$
 - d. $y^2 + 8y + 12$
 - e. $b^2 + 13b + 12$

8. Write in factorised form
 - a. $p^2 + 3p - 10$
 - b. $s^2 - 3s - 10$
 - c. $a^2 - 9a - 10$
 - d. $q^2 + 2q - 3$
 - e. $r^2 + 4r - 5$

9. Factorise
 - a. $x^2 - 5x + 6$
 - b. $y^2 - 7y + 12$
 - c. $p^2 - 12p + 20$
 - d. $a^2 - 9a + 20$
 - e. $f^2 - 21f + 20$

10. Factorise the expression
 - a. $x^2 - 6x - 16$
 - b. $z^2 - 9z + 14$
 - c. $y^2 + 24y - 25$
 - d. $a^2 + 7a + 6$
 - e. $b^2 + 2b - 8$

11. Write in factorise form
 - a. $x^2 - 9$
 - b. $b^2 + 4$
 - c. $2a^2 - 50$
 - d. $16 - y^2$
 - e. $3a^2 - 12$

12. Factorise completely
 - a. $8x - 2x^2$
 - b. $x^3 - 64x$
 - c. $10a^2 - 100$
 - d. $25x^2 - 36y^2$
 - e. $98 - 2p^2$