

Outcome 1 - Common Factor

Bronze examples...

Examples... Look for the **HIGHEST** common factor!

$$2x + 6 = 2(x + 3)$$

$$5y - 25 = 5(y - 5)$$

$$56z + 49 = 7(8z + 7)$$

$$45w - 27 = 9(5w - 3)$$


Silver examples

Examples... Look for the **HIGHEST** common factor!

$$x^2 + 3x = x(x + 3)$$

$$y^2 - 8y = y(y - 8)$$

$$w^3 + 6w^2 = w^2(w + 6)$$


Gold examples

Examples... Look for the **HIGHEST** common factor!

$$4x^2 + 8x = 4x(x + 2)$$

$$16y + 24y^2 = 8y(2 + 3y)$$

$$3p^3 + 9p^2 = 3p^2(p + 3)$$

$$12w^2 + 15w^3 = 3w^2(4 + 5w)$$


Bronze Questions

Factorise the following expressions...

- | | |
|--|--|
|  $3x + 21$ |  $10y - 2$ |
|  $20p + 45$ |  $21r + 35$ |
|  $40s - 28$ |  $24t - 32$ |
|  $36z + 42$ |  $70m - 30$ |
|  $18n + 99$ |  $96b - 36$ |



Silver Questions

Factorise the following expressions...

- | | |
|--|---|
|  $d^2 + 5d$ |  $t^2 - 12t$ |
|  $4h + h^2$ |  $3p - p^2$ |
|  $u^2 - 7u$ |  $q^2 + 2q$ |
|  $k^3 + 8k^2$ |  $r^3 + 5r^2$ |
|  $9g^2 + g^3$ |  $g^2 + 15g^3$ |



Gold Questions

Factorise the following expressions...

- | | |
|--|---|
|  $3x^2 + 12x$ |  $6q^2 + 12q$ |
|  $21t^2 + 56t$ |  $5y + 35y^2$ |
|  $49m + 7m^2$ |  $36s + 27s^2$ |
|  $2h^3 + 18h^2$ |  $64d^3 + 40d^2$ |
|  $12e^2 + 6e^3$ |  $14r^3 + 42r^2$ |



Bronze Answers

- | | | | |
|----|--------------|-----|--------------|
| 1. | $3(x + 7)$ | 2. | $2(5y - 1)$ |
| 3. | $5(4p + 9)$ | 4. | $7(3r + 5)$ |
| 5. | $4(10s - 7)$ | 6. | $8(3t - 4)$ |
| 7. | $6(6z + 7)$ | 8. | $10(7m - 3)$ |
| 9. | $9(2n + 11)$ | 10. | $12(8b - 3)$ |

Silver Answers

- | | | | |
|----|--------------|-----|----------------|
| 1. | $d(d + 5)$ | 2. | $t(t - 12)$ |
| 3. | $h(4 + h)$ | 4. | $p(3 - p)$ |
| 5. | $u(u - 7)$ | 6. | $q(q + 2)$ |
| 7. | $k^2(k + 8)$ | 8. | $r^2(r + 5)$ |
| 9. | $g^2(9 + g)$ | 10. | $g^2(1 + 15g)$ |

Gold Answers

- | | | | |
|----|---------------|-----|----------------|
| 1. | $3x(x + 4)$ | 2. | $6q(q + 2)$ |
| 3. | $7t(3t + 8)$ | 4. | $5y(1 + 7y)$ |
| 5. | $7m(7 + m)$ | 6. | $9s(4 + 3s)$ |
| 7. | $2h^2(h + 9)$ | 8. | $8d^2(8d + 5)$ |
| 9. | $6e^2(2 + e)$ | 10. | $14r^2(r + 3)$ |