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…

1. $3x + 21$ 2. $10y - 2$

3. $20p + 45$ 4. $21r + 35$

5. $40s - 28$ 6. $24t - 32$

7. $36z + 42$ 8. $70m - 30$

9. $18n + 99$ 10. $96b - 36$

Silver Questions

Factorise the following expressions…

1. $d^2 + 5d$ 2. $t^2 - 12t$

3. $4h + h^2$ 4. $3p - p^2$

5. $u^2 - 7u$ 6. $q^2 + 2q$

7. $k^3 + 8k^2$ 8. $r^3 + 5r^2$

9. $9g^2 + g^3$ 10. $g^2 + 15g^3$

Gold Questions

Factorise the following expressions…

1. $3x^2 + 12x$ 2. $6q^2 + 12q$

3. $21t^2 + 56t$ 4. $5y + 35y^2$

5. $49m + 7m^2$ 6. $36s + 27s^2$

7. $2h^3 + 18h^2$ 8. $64d^3 + 40d^2$

9. $12e^2 + 6e^3$ 10. $14r^3 + 42r^2$

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.	$14r^2(r + 3)$

Common Factor