

$$7. \quad 8x^2 + \underline{10x} - 3$$

$$\begin{aligned} & \underline{8x^2 + 10x} - \underline{2x - 3} \\ & 4x(\underline{2x+3}) - 1(\underline{2x+3}) \\ & (2x+3)(4x-1) \end{aligned}$$

KEY #

$$ac = 8(3) = 24$$

P	S	D
1.24	25	23
<u>2.12</u>	14	<u>10</u>
3.8	11	5
4.6	10	2

$$8. \quad 20x^2 - \underline{10x} + 1$$

$$\begin{aligned} & \underline{20x^2 - 10x} - \underline{2x + 1} \\ & 10x(\underline{2x-1}) - 1(\underline{2x-1}) \\ & (2x-1)(10x-1) \end{aligned}$$

KEY #

$$ac = 20(1) = 20$$

P	S	D
1.20	21	19
<u>2.10</u>	<u>12</u>	8
4.5	9	1

$$9. \quad 3x^2 - x - \underline{21x} + 7$$

$$\begin{aligned} & x(\underline{3x-1}) - 7(\underline{3x-1}) \\ & (3x-1)(x-7) \end{aligned}$$

$$10. \quad 27x^2 + 9x - \underline{6x} - 2$$

$$\begin{aligned} & 9x(\underline{3x+1}) - 2(\underline{3x+1}) \\ & (3x+1)(9x-2) \end{aligned}$$

$$11. \quad 9x^2 - 4 \quad \text{DIFF}$$

$$\begin{aligned} & \underbrace{(3x)^2}_F - \underbrace{(2)^2}_L \end{aligned}$$

$$(F+L)(F-L)$$

$$(3x+2)(3x-2)$$

$$12. \quad 27x^3 - 64$$

$$\begin{aligned} & \underbrace{(3x)^3}_F - \underbrace{(4)^3}_L \end{aligned}$$

DIFF OF 2 CUBES

$$(F-L)(F^2 + FL + L^2)$$

$$(3x-4)((3x)^2 + (3x)(4) + (4)^2)$$

$$(3x-4)(9x^2 + 12x + 16)$$

$$13. \quad x^3 + 27 \quad \text{SUM OF 2 CUBES}$$

$$\begin{aligned} & \underbrace{(x)^3}_F + \underbrace{(3)^3}_L \end{aligned}$$

$$(F+L)(F^2 - FL + L^2)$$

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

$$(x+3)(x^2 - 3x + 9)$$