

Mathematics 10D

4.1 – Common Factoring

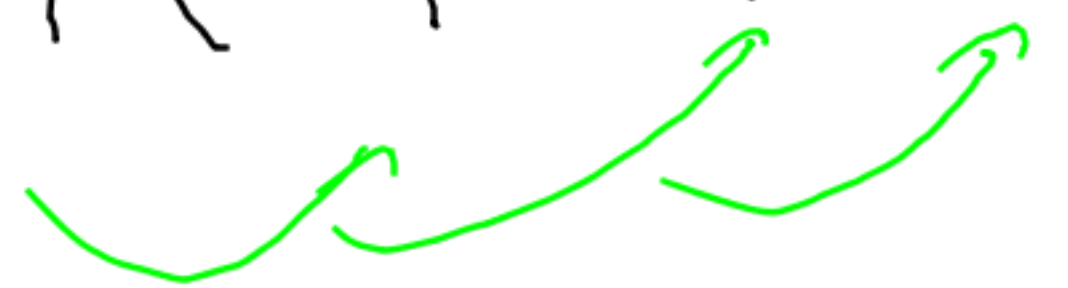
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$$1) -32a^2 + 32a + 40$$

$$-8(4a^2 - 4a - 5)$$

Never let your
leading term
be negative.

$$2) \underline{-45}p^3 + \underline{9}p^2 + \underline{9}p$$

$$-9p(\underline{5}p^2 - \underline{p} - \underline{1})$$


$$\begin{aligned} 3) \quad & \underline{18x^3 + 6x^2} - \underline{21x - 7} \\ &= 6x^2 \underline{(3x + 1)} - 7 \underline{(3x + 1)} \\ &= (3x + 1)(6x^2 - 7) \end{aligned}$$

$$\begin{aligned} 4) \quad & \underline{12n^3 - 9n^2} - \underline{16n + 12} \\ &= 3n^2 (4n - 3) - 4 (4n - 3) \\ &= (4n - 3)(3n^2 - 4) \end{aligned}$$