



Exercise 2F

Question 6:

$$\begin{aligned} &20x^2 - 45 \\ &= 5(4x^2 - 9) \\ &= 5 [(2x)^2 - (3)^2] \\ &= 5 (2x + 3) (2x - 3) \\ &[\text{Since } a^2 - b^2 = (a+b) (a-b)] \end{aligned}$$

Question 7:

$$\begin{aligned} &3x^3 - 48x \\ &= 3x (x^2 - 16) \\ &= 3x [(x)^2 - (4)^2] \\ &= 3x (x + 4) (x - 4) \\ &[\text{Since } a^2 - b^2 = (a+b) (a-b)] \end{aligned}$$

Question 8:

$$\begin{aligned} &2 - 50x^2 \\ &= 2 (1 - 25x^2) \\ &= 2 [(1)^2 - (5x)^2] \\ &= 2 (1 + 5x) (1 - 5x) \\ &[\text{Since } a^2 - b^2 = (a+b) (a-b)] \end{aligned}$$

Question 9:

$$\begin{aligned} &27a^2 - 48b^2 \\ &= 3 (9a^2 - 16b^2) \\ &= 3 [(3a)^2 - (4b)^2] \\ &= 3(3a + 4b) (3a - 4b) \\ &[\text{Since } a^2 - b^2 = (a+b) (a-b)] \end{aligned}$$

Question 10:

$$\begin{aligned} &x - 64x^3 \\ &= x (1 - 64x^2) \\ &= x [(1)^2 - (8x)^2] \\ &= x (1 + 8x) (1 - 8x) \\ &[\text{Since } a^2 - b^2 = (a+b) (a-b)] \end{aligned}$$

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