

## Exercise sets 5.1

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21) Refer to attached image.

21)

$$\frac{1}{2^0} + \frac{1}{2^1} + \frac{1}{2^2} + \frac{1}{2^3} = \frac{15}{8}$$

Ans

60) Refer to attached image.

60)

$$2 * \sum_{k=1}^n (3 * k^2 + 4) + 5 * \sum_{k=1}^n (2 * k^2 - 1) =$$

$$\sum_{k=1}^n (6 * k^2 + 8) + \sum_{k=1}^n (10 * k^2 - 5)$$

↙

$$\sum_{k=1}^n (6 * k^2 + 8) + \sum_{k=1}^n (10 * k^2 - 5) = \sum_{k=1}^n ((6 * k^2 + 8) + (10 * k^2 - 5))$$

$$\sum_{k=1}^n (16 * k^2 + 3)$$