

**3ª Questão** – Observe a figura 1 e escolha 4 itens. A figura 2 é obrigatória. Para cada item, peça a **quantidade de parcelas** que deverão ser calculados.

Figura 1 – Escolha 4 itens

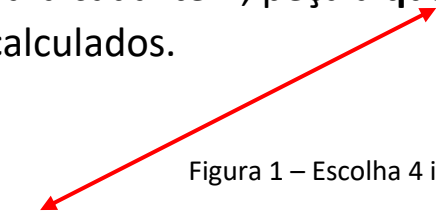
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- |  |   |
|--|---|
| a) $1 + \frac{1}{3} + \frac{1}{9} + \frac{1}{27} + \dots$    | i) $5 + \frac{7}{2} + \frac{49}{20} + \frac{343}{200} + \dots$                                  |
| b) $7 + \frac{7}{3} + \frac{7}{9} + \frac{7}{27} + \dots$    | j) $1 - \frac{\sqrt{2}}{2} + \frac{1}{2} - \frac{\sqrt{2}}{4} + \dots$                          |
| c) $1 + \frac{2}{3} + \frac{4}{9} + \frac{8}{27} + \dots$    | k) $\frac{1}{3} + \frac{1}{6} + \frac{1}{12} + \frac{1}{24} + \dots$                            |
| d) $1 - \frac{2}{3} + \frac{4}{9} - \frac{8}{27} + \dots$    | l) $2 + \frac{1}{3} - 1 + \frac{1}{9} + \frac{1}{2} + \frac{1}{27} - \frac{1}{4} + \dots$       |
| e) $1 - \frac{3}{2} + \frac{9}{4} - \frac{27}{8} + \dots$    | m) $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{9} + \frac{1}{8} + \frac{1}{27} + \dots$ |
| f) $1 + \frac{3}{2} + \frac{9}{4} + \frac{27}{8} + \dots$    | n) $1 - \frac{3}{4} + \frac{9}{16} - \frac{27}{64} + \dots$                                     |
| g) $5 + \frac{10}{3} + \frac{20}{9} + \frac{40}{27} + \dots$ | o) $(\sqrt{5} - 2) + (\sqrt{5} - 2)^2 + (\sqrt{5} - 2)^3 + \dots$                               |
| h) $1 - \frac{1}{2} + \frac{1}{4} - \frac{1}{8} + \dots$     | p) $(\sqrt{3} - \sqrt{2}) + (\sqrt{3} - \sqrt{2})^2 + (\sqrt{3} - \sqrt{2})^3 + \dots$          |

Figura 2 – Item obrigatório

$$\text{sen}(X) = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \frac{x^9}{9!} - \frac{x^{11}}{11!} + \dots$$