

TÀI LIỆU TOÁN CƠ BẢN NÂNG CAO LỚP 7
HƯỚNG DẪN BÀI TẬP VỀ NHÀ
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Họ và tên:.....Ngày học:.....

CA 2

Câu 4. Tính:

$$A = \frac{1}{2} + \frac{5}{6} + \frac{11}{12} + \frac{19}{20} + \frac{29}{30} + \frac{41}{42} + \frac{55}{56} + \frac{71}{72} + \frac{89}{90}.$$

HD:

$$\begin{aligned} A &= \left(1 - \frac{1}{2}\right) + \left(1 - \frac{1}{6}\right) + \left(1 - \frac{1}{12}\right) + \left(1 - \frac{1}{20}\right) + \left(1 - \frac{1}{30}\right) + \left(1 - \frac{1}{42}\right) + \left(1 - \frac{1}{56}\right) + \left(1 - \frac{1}{72}\right) + \left(1 - \frac{1}{90}\right) \\ &= 9 - \left(\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72} + \frac{1}{90}\right) \\ &= 9 - \left(\frac{1}{1.2} + \frac{1}{2.3} + \frac{1}{3.4} + \dots + \frac{1}{9.10}\right) \\ &= 9 - \left(\frac{1}{1} - \frac{1}{2} + \frac{1}{2} - \frac{1}{3} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{9} - \frac{1}{10}\right) \\ &= 9 - \left(1 - \frac{1}{10}\right) = 9 - \frac{9}{10} = \frac{81}{10}. \end{aligned}$$

Câu 5. Tính:

$$B = \frac{3}{2} + \frac{7}{6} + \frac{13}{12} + \frac{21}{20} + \frac{31}{30} + \frac{43}{42} + \frac{57}{56} + \frac{73}{72} + \frac{91}{90}$$

HD:

$$\begin{aligned} B &= \left(1 + \frac{1}{2}\right) + \left(1 + \frac{1}{6}\right) + \left(1 + \frac{1}{12}\right) + \left(1 + \frac{1}{20}\right) + \left(1 + \frac{1}{30}\right) + \left(1 + \frac{1}{42}\right) + \left(1 + \frac{1}{56}\right) + \left(1 + \frac{1}{72}\right) + \left(1 + \frac{1}{90}\right) \\ &= 9 + \left(\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56} + \frac{1}{72} + \frac{1}{90}\right) \\ &= 9 + \left(\frac{1}{1.2} + \frac{1}{2.3} + \frac{1}{3.4} + \dots + \frac{1}{9.10}\right) \\ &= 9 + \left(\frac{1}{1} - \frac{1}{2} + \frac{1}{2} - \frac{1}{3} + \frac{1}{3} - \frac{1}{4} + \dots + \frac{1}{9} - \frac{1}{10}\right) \\ &= 9 + \left(1 - \frac{1}{10}\right) = 10 - \frac{9}{10} = \frac{91}{10}. \end{aligned}$$

Câu 1: Tính $A = \frac{1}{4} + \frac{1}{28} + \frac{1}{70} + \frac{1}{130} + \frac{1}{208} + \frac{1}{304}$.

HD:

$$\begin{aligned} A &= \frac{1}{4} + \frac{1}{28} + \frac{1}{70} + \frac{1}{130} + \frac{1}{208} + \frac{1}{304} \\ &= \frac{1}{1.4} + \frac{1}{4.7} + \frac{1}{7.10} + \frac{1}{10.13} + \frac{1}{13.16} + \frac{1}{16.19} \\ &= \dots \end{aligned}$$

VINASTUDY.VN