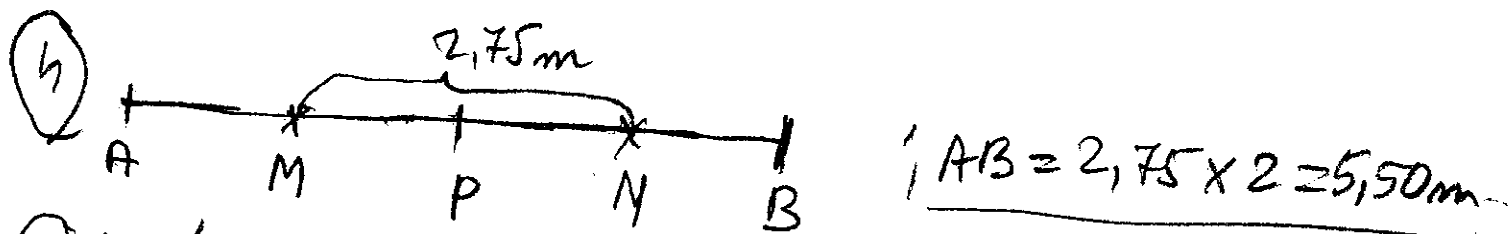


① $7(1+2+3+\dots+52) = 7 \left(\frac{52 \cdot 53}{2} \right) = 7 \cdot 26 \cdot 53$

② $x+x+12^\circ+x+24^\circ+x+36^\circ=360^\circ; 4x=360^\circ-72^\circ; 4x=288^\circ$
 $x=72^\circ; 84^\circ; 96^\circ; 108^\circ$

③ $a+b = \left(\frac{1}{2} + \frac{1}{2}\right) + \left(\frac{2}{3} + \frac{2}{3}\right) + \dots + \left(\frac{2004}{2005} + \frac{1}{2005}\right) = 2004$
 $\frac{a+b}{6} = \frac{2004}{6} = 334$



⑤ $\text{ov} = \left(5\frac{1}{4} - 4\frac{2}{3}\right) : 4\frac{1}{6} = \left(\frac{21}{4} - \frac{14}{3}\right) : \frac{25}{6} = \frac{63-56}{12} : \frac{25}{6} = \frac{7}{12} \cdot \frac{6}{25}$

$a = \frac{7}{12} \cdot \frac{6}{25} = \frac{42}{300} = \frac{21}{150} = \frac{7}{50}; a = \frac{7}{50}$

$b = \left(3\frac{1}{7} + 2\frac{13}{28} - 5\frac{1}{12}\right) \cdot 2\frac{6}{11} = \left(\frac{22}{7} + \frac{69}{28} - \frac{61}{12}\right) \cdot \frac{28}{11}$
 $= \left(\frac{88+69-61}{28} - \frac{61}{12}\right) \cdot \frac{28}{11} = \left(\frac{157}{28} - \frac{61}{12}\right) \cdot \frac{28}{11} = \left(\frac{471}{84} - \frac{427}{84}\right) \cdot \frac{28}{11} = \frac{44}{84} \cdot \frac{28}{11} = \frac{11}{21} \cdot \frac{28}{11} = \frac{308}{231} = \frac{7 \cdot 4}{21 \cdot 3} = \frac{4}{3}$
 $b = \frac{28 \cdot 4}{21 \cdot 3} = \frac{4}{3}$

$c = 3\frac{17}{85} + 2\frac{3}{4} \cdot \frac{8}{11} + \frac{12}{34} = \frac{272}{85} + \frac{11}{4} \cdot \frac{8}{11} + \frac{12}{34} = \frac{272}{85} + \frac{88}{44} + \frac{12}{34}$

⑥ $\frac{272}{85} + 2 + \frac{6}{17} = \frac{272}{85} + \frac{170}{85} + \frac{30}{85} = \frac{472}{85}; c = \frac{472}{85}$

$E = (50 \cdot \text{ov} + b) : \frac{5}{12} = \left(50 \cdot \frac{7}{50} + \frac{4}{3}\right) : \frac{5}{12} = \left(\frac{350}{50} + \frac{4}{3}\right) : \frac{5}{12} = \left(7 + \frac{4}{3}\right) : \frac{5}{12}$
 $E = \left(\frac{21+4}{3}\right) : \frac{5}{12} = \frac{25}{3} \cdot \frac{12}{5} = \frac{300}{15} = 20; E = 20$

⑥ complementul unghiului: $90^\circ - 76^\circ 15' 30'' = 89^\circ 59' 60'' - 76^\circ 15' 30'' = 13^\circ 44' 30''$
 suplementul unghiului: $180^\circ - 76^\circ 15' 30'' = 179^\circ 59' 60'' - 76^\circ 15' 30'' = 103^\circ 44' 30''$