

6

$$\textcircled{1} \frac{\sin 22}{x} = \frac{\sin 40}{24}$$

$$24 \sin 22 = x \sin 40$$

$$\frac{24 \sin 22}{\sin 40} = x$$

$$x = 14$$

2

$$\frac{\sin 53}{x} = \frac{\sin 44}{7}$$

$$x \sin 44 = 7 \sin 53$$

$$x = \frac{7 \sin 53}{\sin 44}$$

$$x = 8.0$$

7

$$\frac{\sin 82}{29} = \frac{\sin C}{20}$$

$$29 \sin C = 20 \sin 82$$

$$\sin C = \frac{20 \sin 82}{29}$$

$$C = \sin^{-1} \left(\frac{20 \sin 82}{29} \right)$$

$$C = 43.1^\circ$$

$$2^{\text{nd}} \Delta = 180 - 43.1 = 136.9$$

$$28.9 + 82 < 180$$

False

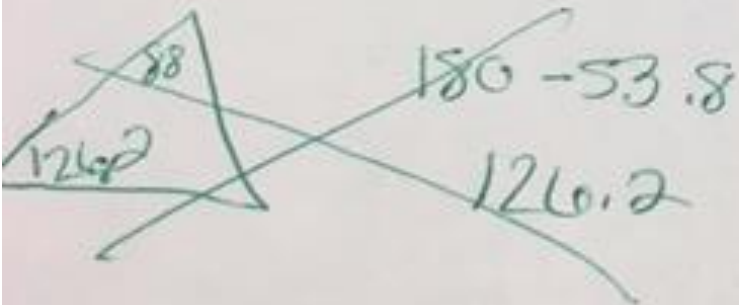
⑤

$$\frac{\sin 88}{26} = \frac{\sin C}{21}$$

$$\frac{21 \sin 88}{26} = \frac{\cancel{26} \sin C}{\cancel{26}}$$

$$\sin^{-1}\left(\frac{21 \sin 88}{26}\right) = C$$

$$53.8 = C$$



$$\textcircled{8} \quad \frac{\sin 103}{26} = \frac{\sin C}{6}$$

$$26 \sin C = 6 \sin 103$$

$$\sin C = \frac{6 \sin 103}{26}$$

$$C = \sin^{-1} \left(\frac{6 \sin 103}{26} \right)$$

$$C = 13^\circ$$

$$2^{\text{nd}} \Delta = 180 - \frac{13}{\cancel{\quad}}$$

$$\frac{167 + 103}{\cancel{\quad}} < 180$$

$$270 < 180$$

False