⑧ Ex 1.2 (Q 18, 19, 20) 17th November 2025

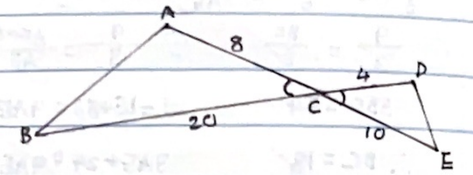
18. ∵ ∠BCA = ∠ECD (vert.opp. ∠s)

$\frac{BC}{EC} = \frac{20}{10} = 2$

$\frac{AC}{CD} = \frac{8}{4} = 2$

$\frac{BC}{EC} = \frac{AC}{CD} = 2$

$\frac{BC}{EC} = \frac{AC}{CD} = 2$



∴ ΔACB ~ ΔDCE (2 sides prop, inc. ∠equal)

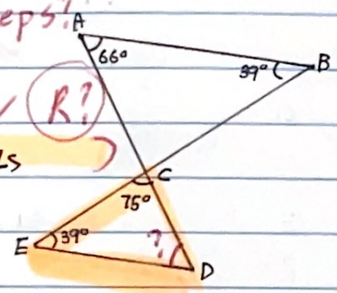
← Calculation Steps?

19. ∵ ∠A = ∠D = 66°

∠B = ∠E = 39°

∠ACB = ∠ECD = 75° ← vert. opp. ∠s

∴ ΔABC ~ ΔDEC (AAA)



R?

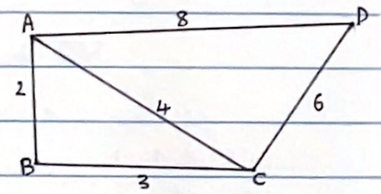
10. ∵ $\frac{AD}{AC} = \frac{8}{4} = 2$

$\frac{CD}{BC} = \frac{6}{3} = 2$

$\frac{AC}{AB} = \frac{4}{2} = 2$

$\frac{AD}{AC} = \frac{CD}{BC} = \frac{AC}{AB} = 2$

∴ Δ ABC ~ Δ ACD (3 sides prop.)



Corr. for Q19 (∠D steps) (∠ sum of Δ) good!

∠A = ∠D (alt. ∠s, AB//) ✗

∠A = 66°

∠D = 66°

∠D + 39° + 75° = 180° (∠ sum of Δ)

∠D = 66°

reason, steps are required in proving questions!!

19 NOV 2025

⑨ Ex 12.3 (Q 24, 25, 26) 24th November 2025

24. $\sin 30° = \frac{4}{BD}$

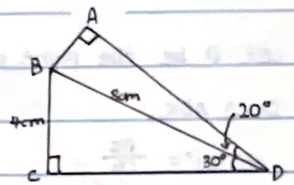
$BD = \frac{4}{\sin 30°}$

BD = 8cm

$\cos 20° = \frac{AD}{8}$

$8\cos 20° = AD$

∴ AD = 7.52cm



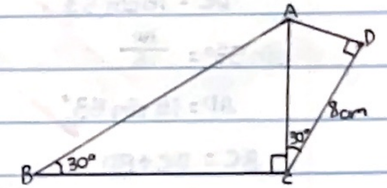
25. $\cos 30° = \frac{8}{AC}$

$AC = \frac{8}{\cos 30°}$

$\tan 30° = \frac{\frac{8}{\cos 30°}}{BC}$

$BC = \frac{\frac{8}{\cos 30°}}{\tan 30°}$

∴ BC = 16



26. ① $\tan \angle ACB = \frac{AB}{BC}$

$\tan 50° = \frac{AB}{BC}$

$BC = \frac{AB}{\tan 50°}$

$BC = \frac{9\sin 50°}{\tan 50°}$

BC = 5.79cm

irrelevant!

② $\tan \angle ADB = \frac{AB}{BD}$

$\tan 35° = \frac{9\sin 50°}{BD}$

$BD = \frac{9\sin 50°}{\tan 35°}$

∵ BD = BC + CD

CD = BD − BC

∴ $CD = \frac{9\sin 50°}{\tan 35°} - 9\cos 50°$

$\sin \angle ACB = \frac{AB}{AC}$

$\sin 50° = \frac{AB}{9}$

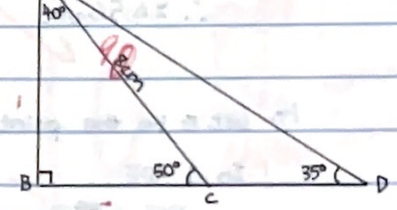
$AB = 9\sin 50°$

③ $\sin \angle ADB = \frac{AB}{AD}$

$\sin 35° = \frac{9\sin 50°}{AD}$

$AD = \frac{9\sin 50°}{\sin 35°}$

∴ AD = 12.02cm



27 NOV 2025