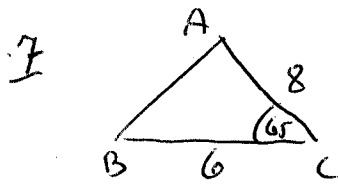


$$10^2 = 7^2 + 8^2 - 2 \cdot 7 \cdot 8 \cdot \cos \gamma$$

$$\frac{100 - 49 - 64}{-2 \cdot 7 \cdot 8} = \cos \gamma \rightarrow \gamma = 83.33$$

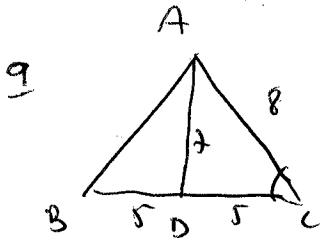


$$AB^2 = 8^2 + 6^2 - 2 \cdot 8 \cdot 6 \cdot \cos 65 \Rightarrow AB = 7.7089$$

$$BC^2 = 6^2 = 8^2 + 7.71^2 - 2 \cdot 8 \cdot 7.71 \cos \alpha$$

$$\cos \alpha = \frac{36 - 64 - 7.71^2}{-2 \cdot 8 \cdot 7.71} \Rightarrow \alpha = 44.858$$

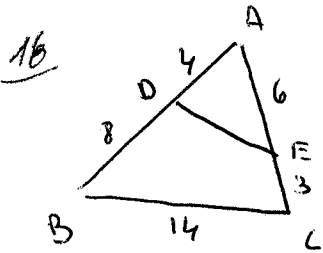
$$\alpha_B = 180 - \alpha_A - \alpha_C = 70.14$$



$$7^2 = 5^2 + 8^2 - 2 \cdot 5 \cdot 8 \cos \alpha$$

$$\cos \alpha = \frac{49 - 25 - 64}{-2 \cdot 5 \cdot 8} \Rightarrow \alpha = 60$$

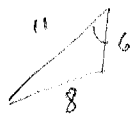
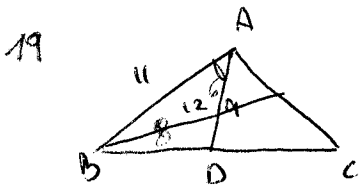
$$AB^2 = 8^2 + 10^2 - 2 \cdot 8 \cdot 10 \cos 60 = 84 \quad AB = 9.165$$



$$14^2 = 12^2 + 9^2 - 2 \cdot 12 \cdot 9 \cdot \cos \alpha$$

$$\cos \alpha = \frac{14^2 - 12^2 - 9^2}{-2 \cdot 12 \cdot 9} \Rightarrow \alpha = 82.28$$

$$DE^2 = 4^2 + 6^2 - 2 \cdot 4 \cdot 6 \cdot \cos 82.28 = 41.55 \quad DE = 6.45$$



היתכונים, מתחלקים -  $\frac{2}{3}, \frac{1}{3}$

11 - 5 6 קו הגובה (הצד)

$$8^2 = 11^2 + 6^2 - 2 \cdot 6 \cdot 11 \cdot \cos \alpha$$

$$\cos \alpha = \frac{8^2 - 11^2 - 6^2}{-2 \cdot 6 \cdot 11} \Rightarrow \boxed{\alpha = 45.2}$$

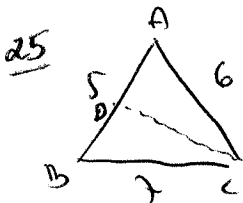
BC - היתכונים (BD) היתכונים  $\alpha$  היתכונים  $\alpha$  היתכונים  $\alpha$  היתכונים  $\alpha$

$$BD^2 = 11^2 + 9^2 - 2 \cdot 11 \cdot 9 \cos 45.2 = 67.48 \rightarrow BD = 7.9 \rightarrow BC = 15.8$$

$$9^2 = 11^2 + 7.9^2 - 2 \cdot 11 \cdot 7.9 \cos \alpha_B$$

$$\cos \alpha_B = \frac{9^2 - 11^2 - 7.9^2}{-2 \cdot 11 \cdot 7.9} \Rightarrow \alpha_B = 53.89$$

$$AC^2 = 11^2 + 15.8^2 - 2 \cdot 11 \cdot 15.8 \cos 53.89 = 166.82 \quad AC = 12.877$$



( $\alpha_C$  היתכונים היתכונים) היתכונים היתכונים  $\alpha_A$  היתכונים  $\alpha_A$

$$7^2 = 5^2 + 6^2 - 2 \cdot 5 \cdot 6 \cdot \cos \alpha$$

$$\cos \alpha = \frac{7^2 - 5^2 - 6^2}{-2 \cdot 5 \cdot 6} = 78.46$$

$$y = \frac{x}{6}$$

$$6y = x \Leftrightarrow \frac{6}{7} = \frac{AC}{BC} = \frac{AD}{BD} = \frac{x}{y}$$

היתכונים היתכונים היתכונים  
y - BD, x - AD היתכונים

$$5 = x + y = x + \frac{x}{6} \rightarrow \boxed{x = \frac{24}{7} = AD}$$

$$DC^2 = AD^2 + 6^2 - 2 \cdot AD \cdot 6 \cdot \cos \alpha = 35.785$$

$$\boxed{DC = 5.98}$$