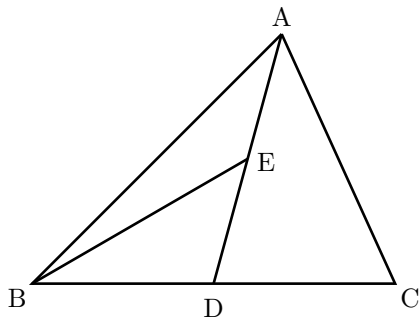


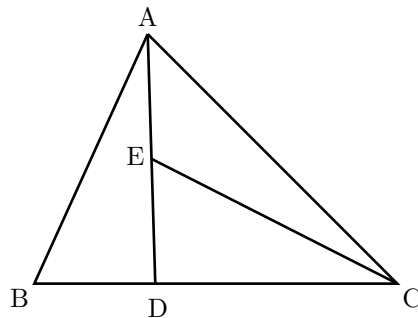
# 反射テスト 面積比 三角形 in 三角形 01

1.  $\triangle ABC$  の面積に対する割合を書き込め。(S級1分20秒, A級1分50秒, B級2分30秒, C級4分)

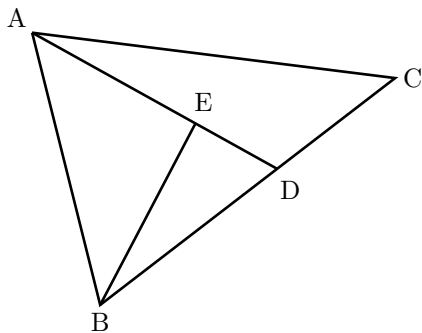
(1)  $BD : DC = 1 : 1$ ,  $AE : ED = 1 : 1$



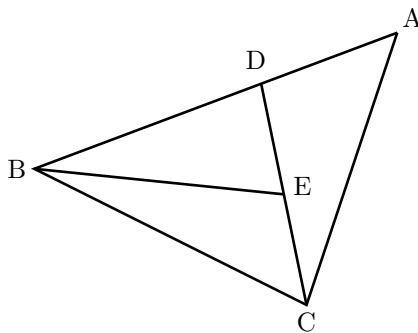
(2)  $BD : DC = 1 : 2$ ,  $AE : ED = 1 : 1$



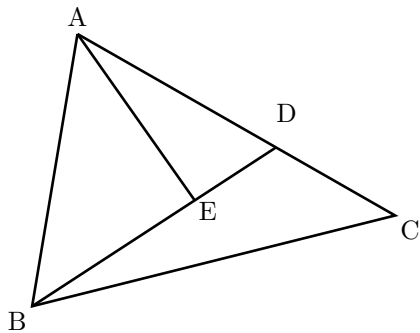
(3)  $BD : DC = 3 : 2$ ,  $AE : ED = 2 : 1$



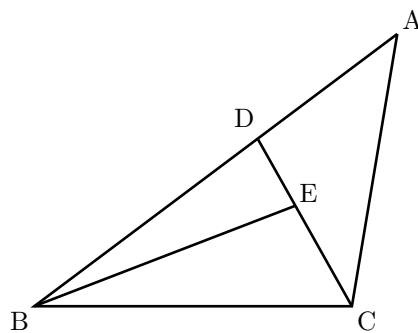
(4)  $AD : DB = 3 : 5$ ,  $DE : EC = 1 : 1$



(5)  $AD : DC = 5 : 2$ ,  $BE : ED = 2 : 1$

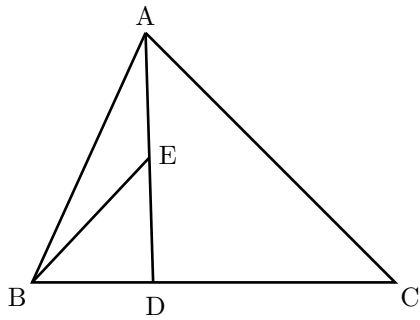


(6)  $AD : DB = 5 : 8$ ,  $CE : ED = 3 : 2$

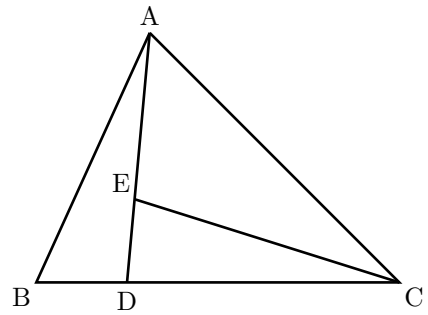


2.  $\triangle ABC$  の面積に対する **割合** を書き込め。(S級 1分 20秒, A級 1分 50秒, B級 2分 30秒, C級 4分)

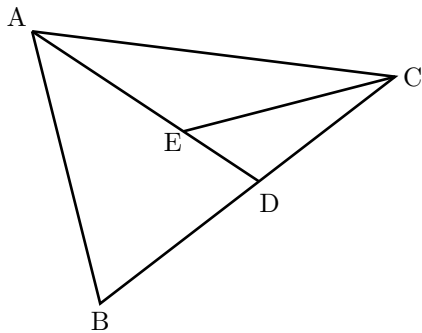
(1)  $BD : DC = 1 : 2$ ,  $AE : ED = 1 : 1$



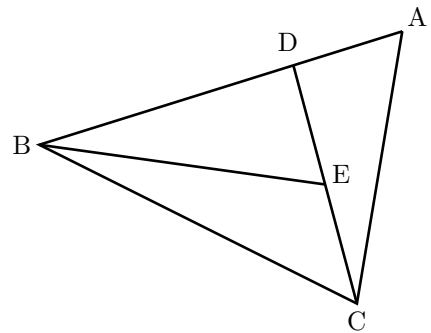
(2)  $BD : DC = 1 : 3$ ,  $AE : ED = 2 : 1$



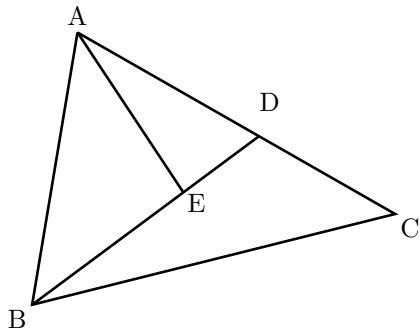
(3)  $BD : DC = 7 : 6$ ,  $AE : ED = 2 : 1$



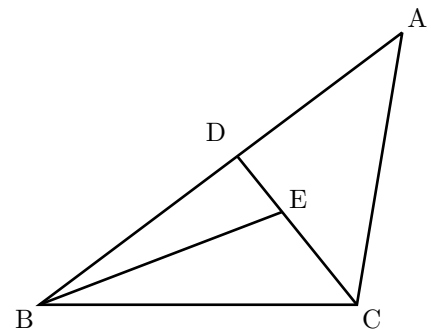
(4)  $AD : DB = 3 : 7$ ,  $DE : EC = 1 : 1$



(5)  $AD : DC = 4 : 3$ ,  $BE : ED = 2 : 1$

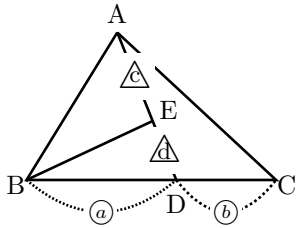


(6)  $AD : DB = 5 : 6$ ,  $CE : ED = 5 : 3$



# 反射テスト 面積比 三角形 in 三角形 01 解答解説

1.  $\triangle ABC$  の面積に対する割合を書き込め。(S級1分20秒, A級1分50秒, B級2分30秒, C級4分)

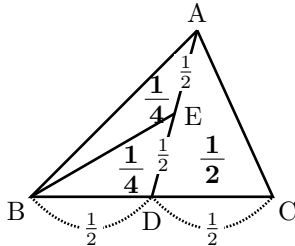


★ 図形の基本は三角形 (最重要格言) ☆必ず  $\bigcirc$  と  $\triangle$  を図にかきこむこと.

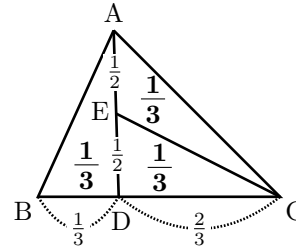
$$\triangle ABE = \frac{a}{a+b} \times \frac{c}{c+d} \quad \triangle EBD = \frac{a}{a+b} \times \frac{d}{c+d} \quad \triangle ADC = \frac{b}{a+b}$$

(1)  $BD : DC = 1 : 1, AE : ED = 1 : 1$

(2)  $BD : DC = 1 : 2, AE : ED = 1 : 1$



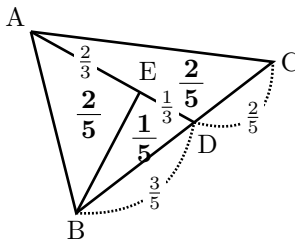
$$\triangle ABE : \triangle EBD : \triangle ADC = \left(\frac{1}{2} \times \frac{1}{2}\right) : \left(\frac{1}{2} \times \frac{1}{2}\right) : \frac{1}{2} = \frac{1}{4} : \frac{1}{4} : \frac{1}{2}$$



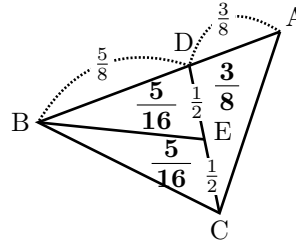
$$\triangle ABD : \triangle AEC : \triangle EDC = \frac{1}{3} : \left(\frac{2}{3} \times \frac{1}{2}\right) : \left(\frac{2}{3} \times \frac{1}{2}\right) = \frac{1}{3} : \frac{1}{3} : \frac{1}{3}$$

(3)  $BD : DC = 3 : 2, AE : ED = 2 : 1$

(4)  $AD : DB = 3 : 5, DE : EC = 1 : 1$



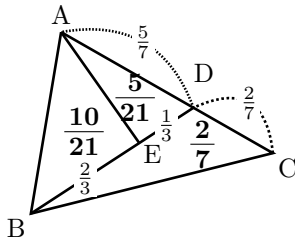
$$\triangle ABE : \triangle EBD : \triangle ADC = \left(\frac{3}{5} \times \frac{2}{3}\right) : \left(\frac{3}{5} \times \frac{1}{3}\right) : \frac{2}{5} = \frac{2}{5} : \frac{1}{5} : \frac{2}{5}$$



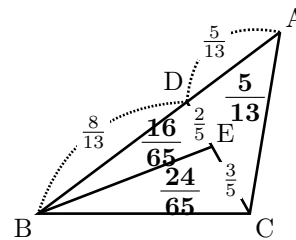
$$\triangle DBE : \triangle EBC : \triangle ADC = \left(\frac{5}{8} \times \frac{1}{2}\right) : \left(\frac{5}{8} \times \frac{1}{2}\right) : \frac{3}{8} = \frac{5}{16} : \frac{5}{16} : \frac{3}{8}$$

(5)  $AD : DC = 5 : 2, BE : ED = 2 : 1$

(6)  $AD : DB = 5 : 8, CE : ED = 3 : 2$



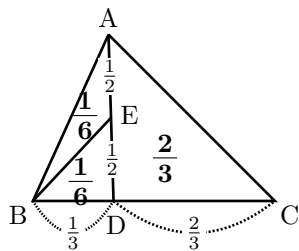
$$\triangle ABE : \triangle AED : \triangle DBC = \left(\frac{5}{7} \times \frac{2}{3}\right) : \left(\frac{5}{7} \times \frac{1}{3}\right) : \frac{2}{7} = \frac{10}{21} : \frac{5}{21} : \frac{2}{7}$$



$$\triangle DBE : \triangle EBC : \triangle ADC = \left(\frac{8}{13} \times \frac{2}{5}\right) : \left(\frac{8}{13} \times \frac{3}{5}\right) : \frac{5}{13} = \frac{16}{65} : \frac{24}{65} : \frac{5}{13}$$

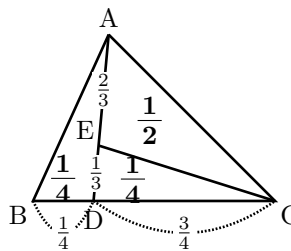
2.  $\triangle ABC$  の面積に対する **割合** を書き込め。(S級1分20秒, A級1分50秒, B級2分30秒, C級4分)

(1)  $BD : DC = 1 : 2$ ,  $AE : ED = 1 : 1$



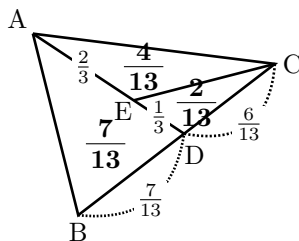
$$\begin{aligned} \triangle ABE : \triangle EBD : \triangle ADC &= \left(\frac{1}{3} \times \frac{1}{2}\right) : \left(\frac{1}{3} \times \frac{1}{2}\right) : \frac{2}{3} \\ &= \frac{1}{6} : \frac{1}{6} : \frac{2}{3} \end{aligned}$$

(2)  $BD : DC = 1 : 3$ ,  $AE : ED = 2 : 1$



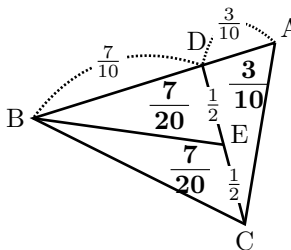
$$\begin{aligned} \triangle ABD : \triangle AEC : \triangle EDC &= \frac{1}{4} : \left(\frac{3}{4} \times \frac{2}{3}\right) : \left(\frac{3}{4} \times \frac{1}{3}\right) \\ &= \frac{1}{4} : \frac{1}{2} : \frac{1}{4} \end{aligned}$$

(3)  $BD : DC = 7 : 6$ ,  $AE : ED = 2 : 1$



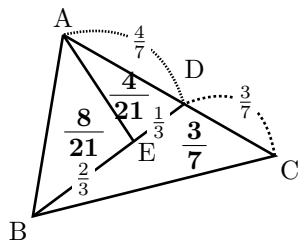
$$\begin{aligned} \triangle ABD : \triangle AEC : \triangle EDC &= \frac{7}{13} : \left(\frac{6}{13} \times \frac{2}{3}\right) : \left(\frac{6}{13} \times \frac{1}{3}\right) \\ &= \frac{7}{13} : \frac{4}{13} : \frac{2}{13} \end{aligned}$$

(4)  $AD : DB = 3 : 7$ ,  $DE : EC = 1 : 1$



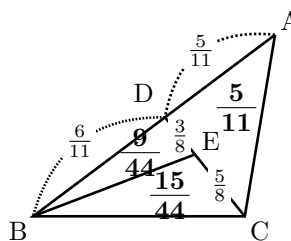
$$\begin{aligned} \triangle DBE : \triangle EBC : \triangle ADC &= \left(\frac{7}{10} \times \frac{1}{2}\right) : \left(\frac{7}{10} \times \frac{1}{2}\right) : \frac{3}{10} \\ &= \frac{7}{20} : \frac{7}{20} : \frac{3}{10} \end{aligned}$$

(5)  $AD : DC = 4 : 3$ ,  $BE : ED = 2 : 1$



$$\begin{aligned} \triangle ABE : \triangle AED : \triangle DBC &= \left(\frac{4}{7} \times \frac{2}{3}\right) : \left(\frac{4}{7} \times \frac{1}{3}\right) : \frac{3}{7} \\ &= \frac{8}{21} : \frac{4}{21} : \frac{3}{7} \end{aligned}$$

(6)  $AD : DB = 5 : 6$ ,  $CE : ED = 5 : 3$



$$\begin{aligned} \triangle DBE : \triangle EBC : \triangle ADC &= \left(\frac{6}{11} \times \frac{3}{8}\right) : \left(\frac{6}{11} \times \frac{5}{8}\right) : \frac{5}{11} \\ &= \frac{9}{44} : \frac{15}{44} : \frac{5}{11} \end{aligned}$$