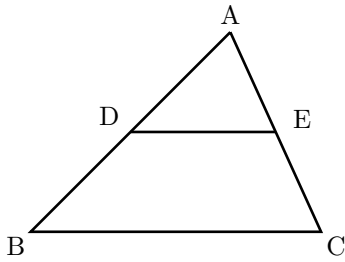


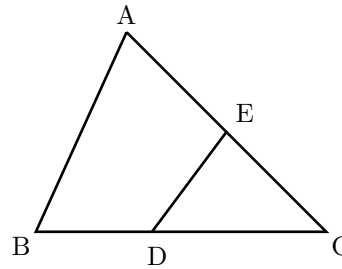
反射テスト 面積比 三角形&四角形 in 三角形 01

1. $\triangle ABC$ に対する面積の割合を書き込め。(S級1分, A級1分30秒, B級2分, C級4分)

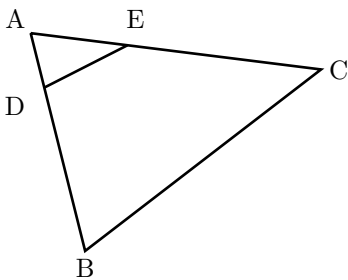
(1) $AD : DB = 1 : 1$, $AE : EC = 1 : 1$



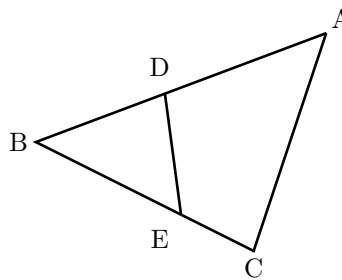
(2) $BD : DC = 2 : 3$, $AE : EC = 1 : 1$



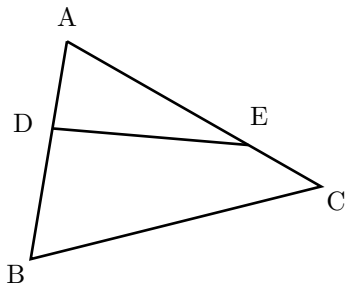
(3) $AE : EC = 1 : 2$, $AD : DB = 1 : 3$



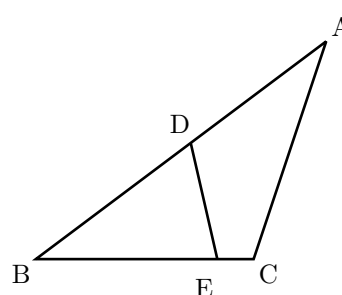
(4) $AD : DB = 5 : 4$, $BE : EC = 2 : 1$



(5) $AD : DB = 2 : 3$, $AE : EC = 5 : 2$

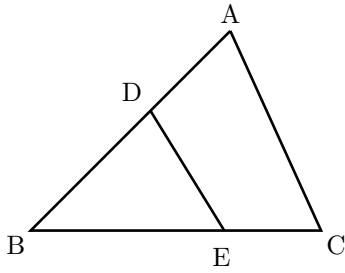


(6) $AD : DB = 7 : 8$, $BE : EC = 5 : 1$

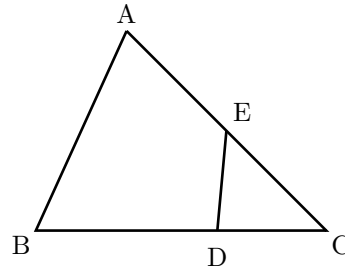


2. $\triangle ABC$ に対する面積の割合を書き込め。(S級1分10秒, A級1分30秒, B級2分, C級4分)

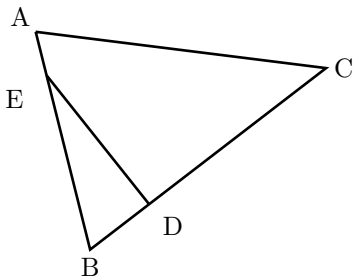
(1) $AD : DB = 2 : 3$, $BE : EC = 2 : 1$



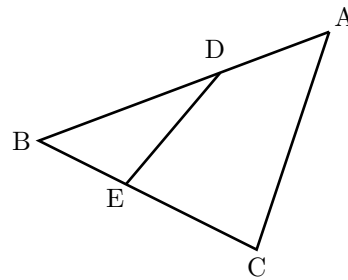
(2) $BD : DC = 5 : 3$, $AE : EC = 1 : 1$



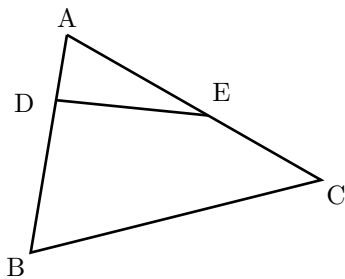
(3) $BD : DC = 1 : 4$, $AE : EB = 1 : 5$



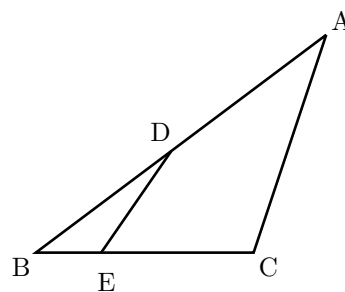
(4) $AD : DB = 3 : 5$, $BE : EC = 2 : 3$



(5) $AD : DB = 3 : 7$, $AE : EC = 5 : 4$



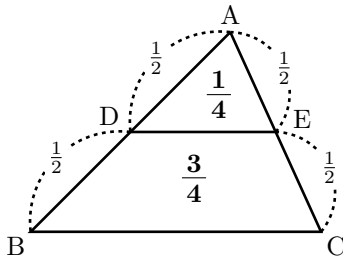
(6) $AD : DB = 8 : 7$, $BE : EC = 3 : 7$



反射テスト 面積比 三角形&四角形 in 三角形 01 解答解説

1. $\triangle ABC$ に対する面積の割合を書き込め。(S級1分, A級1分30秒, B級2分, C級4分)

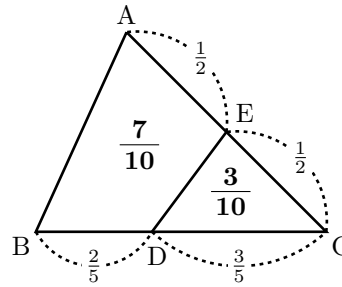
(1) $AD : DB = 1 : 1, AE : EC = 1 : 1$



$$\triangle ADE : \triangle ABC = \left(\frac{1}{2} \cdot \frac{1}{2}\right) : 1 = \frac{1}{4} : 1$$

$$\Rightarrow \text{台形 DBCE} = 1 - \frac{1}{4} = \frac{3}{4}$$

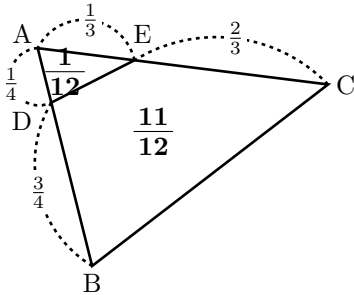
(2) $BD : DC = 2 : 3, AE : EC = 1 : 1$



$$\triangle ADE : \triangle ABC = \left(\frac{3}{5} \cdot \frac{1}{2}\right) : 1 = \frac{3}{10} : 1$$

$$\Rightarrow \text{四角形 EABD} = 1 - \frac{3}{10} = \frac{7}{10}$$

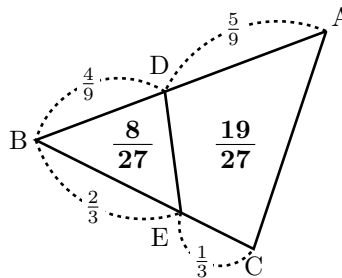
(3) $AE : EC = 1 : 2, AD : DB = 1 : 3$



$$\triangle ADE : \triangle ABC = \left(\frac{1}{4} \cdot \frac{1}{3}\right) : 1 = \frac{1}{12} : 1$$

$$\Rightarrow \text{四角形 DBCE} = 1 - \frac{1}{12} = \frac{11}{12}$$

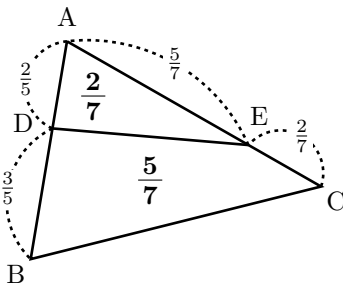
(4) $AD : DB = 5 : 4, BE : EC = 2 : 1$



$$\triangle ADE : \triangle ABC = \left(\frac{4}{9} \cdot \frac{2}{3}\right) : 1 = \frac{8}{27} : 1$$

$$\Rightarrow \text{四角形 ECAD} = 1 - \frac{8}{27} = \frac{19}{27}$$

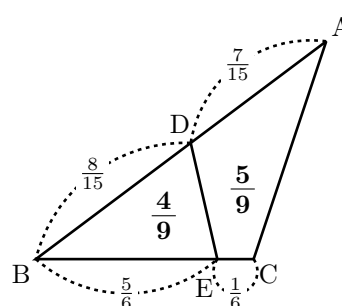
(5) $AD : DB = 2 : 3, AE : EC = 5 : 2$



$$\triangle ADE : \triangle ABC = \left(\frac{2}{5} \cdot \frac{5}{7}\right) : 1 = \frac{2}{7} : 1$$

$$\Rightarrow \text{四角形 DBCE} = 1 - \frac{2}{7} = \frac{5}{7}$$

(6) $AD : DB = 7 : 8, BE : EC = 5 : 1$

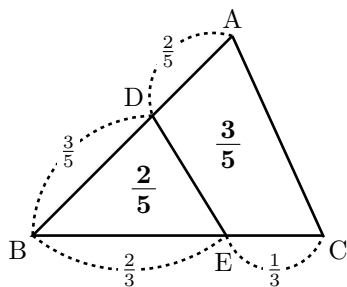


$$\triangle ADE : \triangle ABC = \left(\frac{8}{15} \cdot \frac{5}{6}\right) : 1 = \frac{4}{9} : 1$$

$$\Rightarrow \text{四角形 ECADDBCE} = 1 - \frac{4}{9} = \frac{5}{9}$$

2. $\triangle ABC$ に対する面積の割合を書き込め。(S級1分10秒, A級1分30秒, B級2分, C級4分)

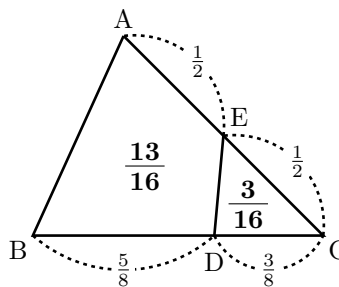
(1) $AD : DB = 2 : 3, BE : EC = 2 : 1$



$$\triangle ADE : \triangle ABC = \left(\frac{2}{5} \cdot \frac{2}{3}\right) : 1 = \frac{2}{5} : 1$$

$$\Rightarrow \text{四角形 ECAD} = 1 - \frac{2}{5} = \frac{3}{5}$$

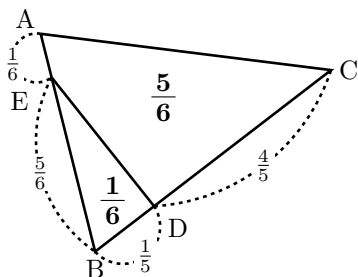
(2) $BD : DC = 5 : 3, AE : EC = 1 : 1$



$$\triangle ADE : \triangle ABC = \left(\frac{3}{8} \cdot \frac{1}{2}\right) : 1 = \frac{3}{16} : 1$$

$$\Rightarrow \text{四角形 EABD} = 1 - \frac{3}{16} = \frac{13}{16}$$

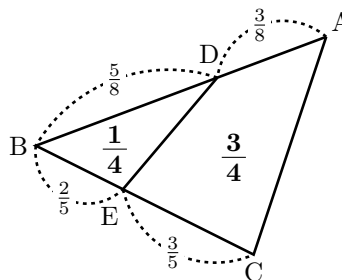
(3) $BD : DC = 1 : 4, AE : EB = 1 : 5$



$$\triangle ADE : \triangle ABC = \left(\frac{1}{5} \cdot \frac{5}{6}\right) : 1 = \frac{1}{6} : 1$$

$$\Rightarrow \text{四角形 DCAE} = 1 - \frac{1}{6} = \frac{5}{6}$$

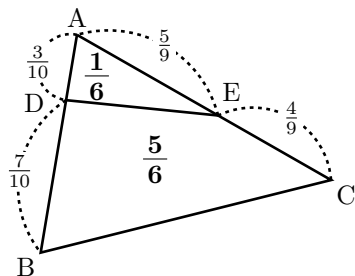
(4) $AD : DB = 3 : 5, BE : EC = 2 : 3$



$$\triangle ADE : \triangle ABC = \left(\frac{5}{8} \cdot \frac{2}{5}\right) : 1 = \frac{1}{4} : 1$$

$$\Rightarrow \text{四角形 ECAD} = 1 - \frac{1}{4} = \frac{3}{4}$$

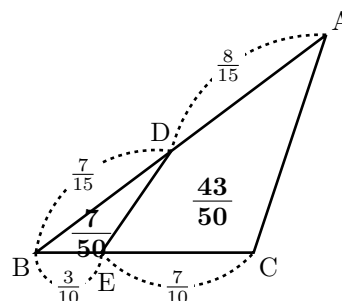
(5) $AD : DB = 3 : 7, AE : EC = 5 : 4$



$$\triangle ADE : \triangle ABC = \left(\frac{3}{10} \cdot \frac{5}{9}\right) : 1 = \frac{1}{6} : 1$$

$$\Rightarrow \text{四角形 DBCE} = 1 - \frac{1}{6} = \frac{5}{6}$$

(6) $AD : DB = 8 : 7, BE : EC = 3 : 7$



$$\triangle ADE : \triangle ABC = \left(\frac{7}{15} \cdot \frac{3}{10}\right) : 1 = \frac{7}{50} : 1$$

$$\Rightarrow \text{四角形 ECAD} = 1 - \frac{7}{50} = \frac{43}{50}$$