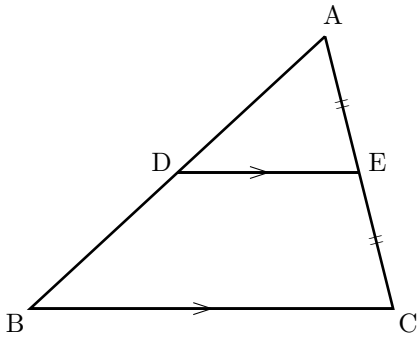


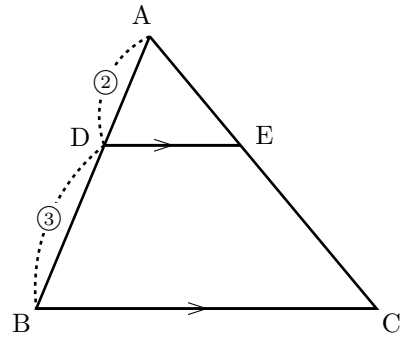
反射テスト 相似と面積比 三角形と平行線 01

1. 下図の三角形の内部に面積比を書き込め。(S級 35秒, A級 50秒, B級 1分40秒, C級 2分40秒)

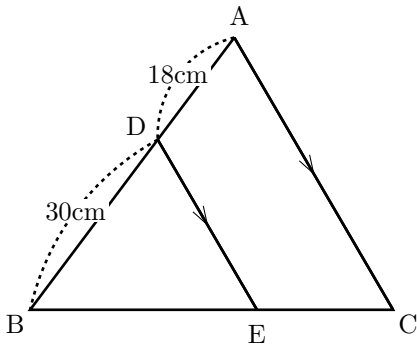
(1)



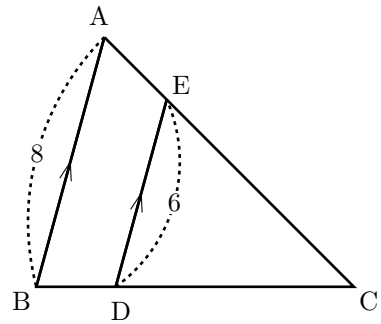
(2)



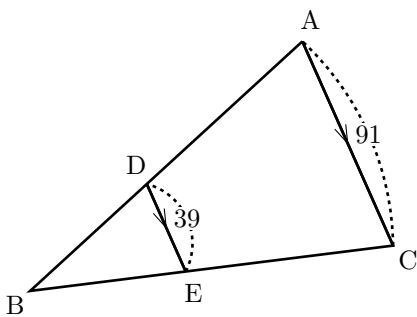
(3)



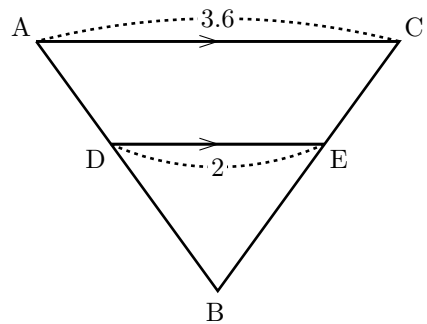
(4)



(5)

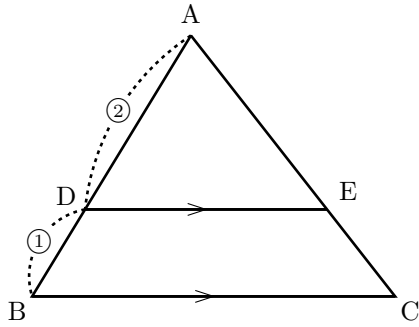


(6)

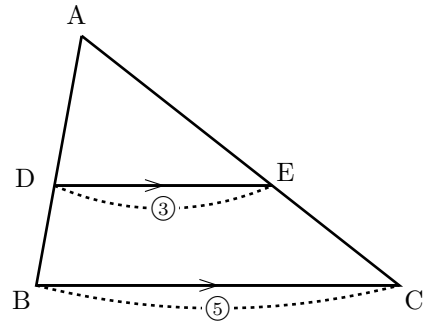


2. 下図の三角形の内部に面積比を書き込め。(S級 35秒, A級 50秒, B級 1分40秒, C級 2分40秒)

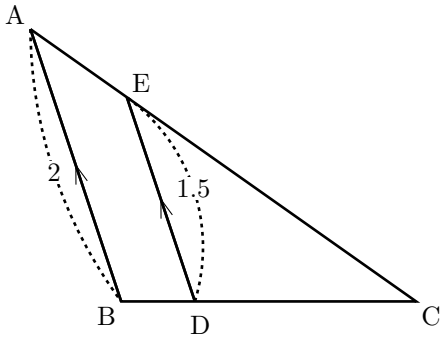
(1)



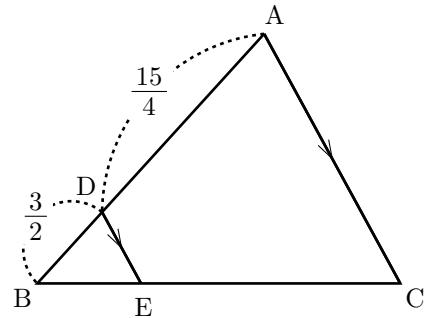
(2)



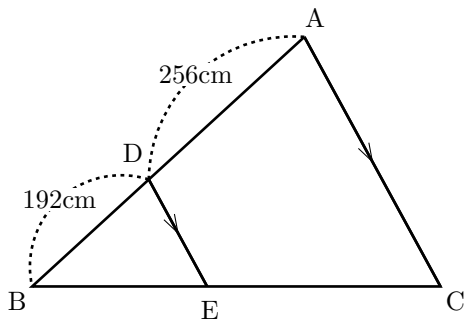
(3)



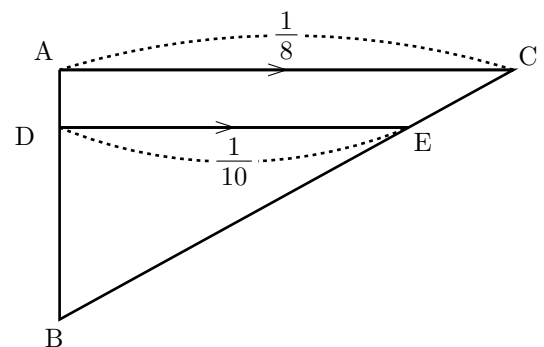
(4)



(5)



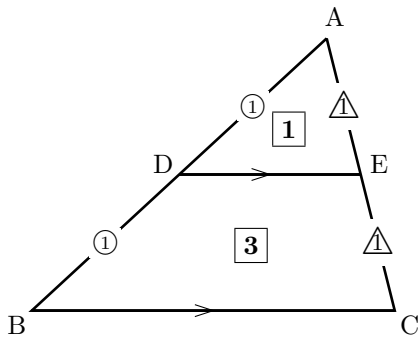
(6)



反射テスト 相似と面積比 三角形と平行線 01 解答解説

1. 下図の三角形の内部に面積比を書き込め。(S級 35秒, A級 50秒, B級 1分40秒, C級 2分40秒)

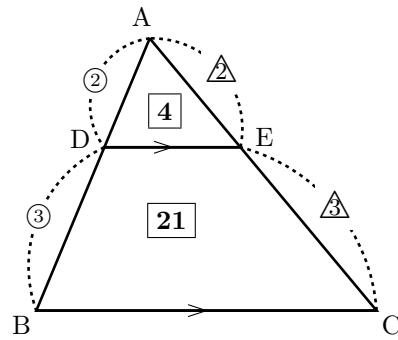
(1)



$$\triangle ADE : \triangle ABC = (1 \times \triangle) : (2 \times \triangle) = 1 : 4$$

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

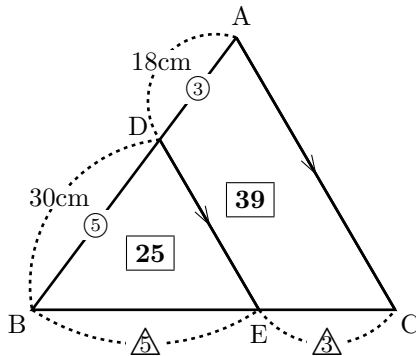
(2)



$$\triangle ADE : \triangle ABC = (2 \times \triangle) : (5 \times \triangle) = 4 : 25$$

$$\Rightarrow \text{台形 DBCE} = 25 - 4 = 21$$

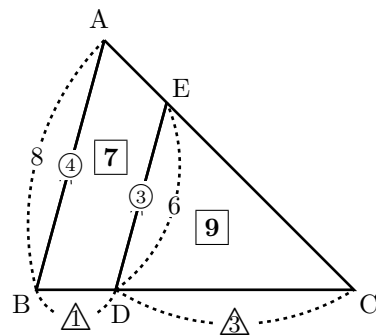
(3)



$$\triangle DBE : \triangle ABC = (5 \times \triangle) : (8 \times \triangle) = 25 : 64$$

$$\Rightarrow \text{台形 DECA} = 64 - 25 = 39$$

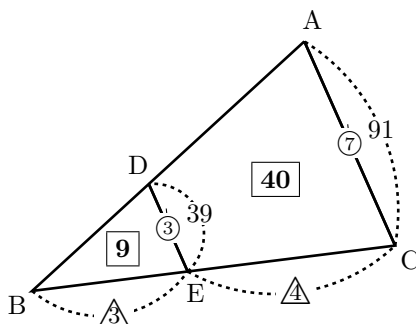
(4)



$$\triangle EDC : \triangle ABC = (3 \times \triangle) : (4 \times \triangle) = 9 : 16$$

$$\Rightarrow \text{台形 ABDE} = 16 - 9 = 7$$

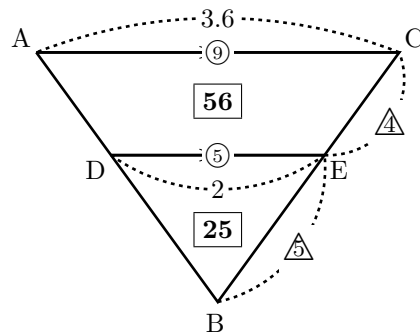
(5)



$$\triangle DBE : \triangle ABC = (3 \times \triangle) : (3 \times \triangle) = 9 : 49$$

$$\Rightarrow \text{台形 DECA} = 49 - 9 = 40$$

(6)

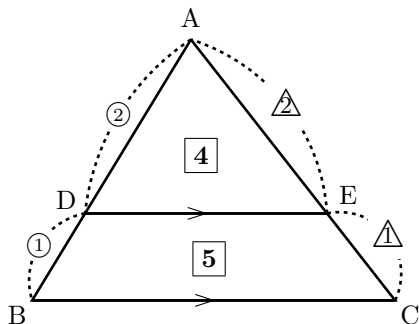


$$\triangle DBE : \triangle ABC = (5 \times \triangle) : (9 \times \triangle) = 25 : 81$$

$$\Rightarrow \text{台形 ADEC} = 81 - 25 = 56$$

2. 下図の三角形の内部に面積比を書き込め。(S級35秒, A級50秒, B級1分40秒, C級2分40秒)

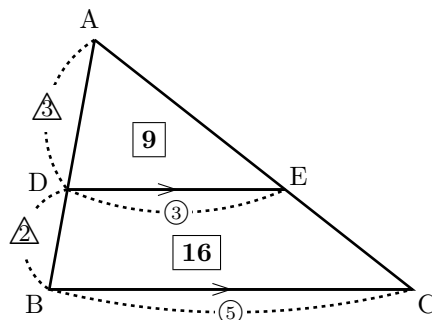
(1)



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

$$\Rightarrow \text{台形 DBCE} = 9 - 4 = 5$$

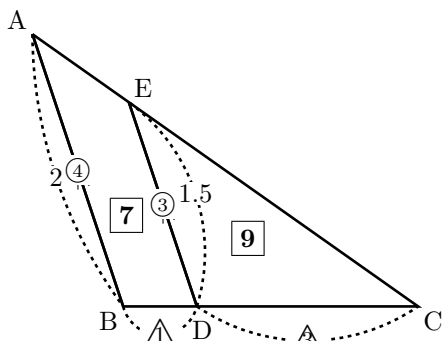
(2)



$$\triangle ADE : \triangle ABC = \left(\frac{3}{5} \times \frac{3}{5} \right) : \left(\frac{5}{5} \times \frac{5}{5} \right) = 9 : 25$$

$$\Rightarrow \text{台形 DBCE} = 25 - 9 = 16$$

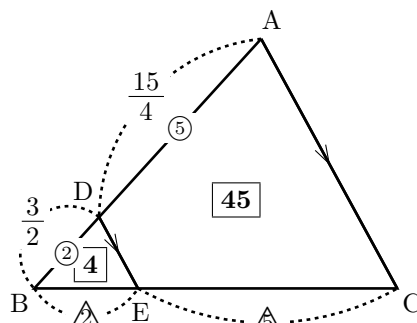
(3)



$$\triangle EDC : \triangle ABC = \left(\frac{3}{4} \times \frac{1.5}{4} \right) : \left(\frac{4}{4} \times \frac{4}{4} \right) = 16 : 9$$

$$\Rightarrow \text{台形 ABDE} = 16 - 9 = 7$$

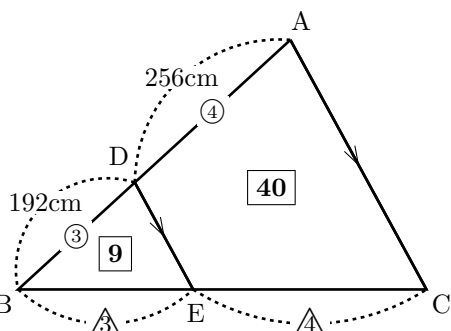
(4)



$$\triangle DBE : \triangle ABC = \left(\frac{2}{7} \times \frac{3}{4} \right) : \left(\frac{7}{7} \times \frac{7}{7} \right) = 4 : 49$$

$$\Rightarrow \text{台形 DECA} = 49 - 4 = 45$$

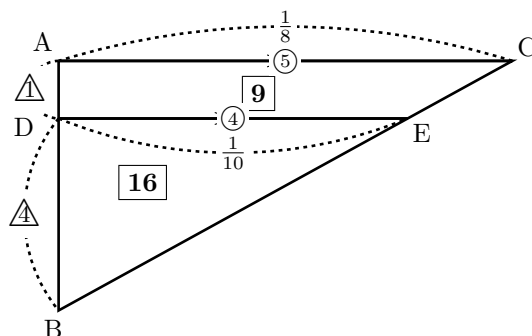
(5)



$$\triangle DBE : \triangle ABC = \left(\frac{3}{7} \times \frac{3}{7} \right) : \left(\frac{7}{7} \times \frac{7}{7} \right) = 9 : 49$$

$$\Rightarrow \text{台形 DECA} = 49 - 9 = 40$$

(6)



$$\triangle DBE : \triangle ABC = \left(\frac{4}{5} \times \frac{1}{10} \right) : \left(\frac{5}{5} \times \frac{5}{5} \right) = 16 : 25$$

$$\Rightarrow \text{台形 ADEC} = 25 - 16 = 9$$