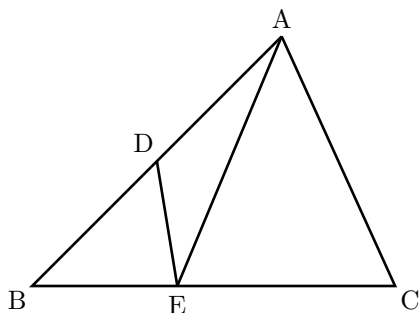


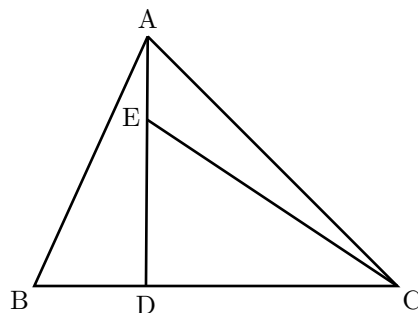
# 反射テスト 面積比 三角形 in 三角形 03

1. 下図の三角形の内部に面積比を書き込め。(S級1分20秒, A級2分, B級3分30秒, C級5分)

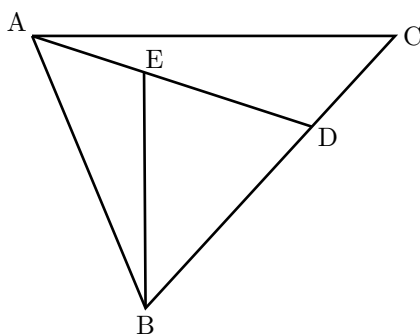
(1)  $AD : DB = 1 : 1$ ,  $BE : EC = 2 : 3$



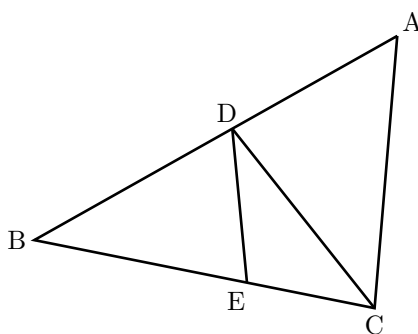
(2)  $BD : DC = 4 : 9$ ,  $AE : ED = 1 : 2$



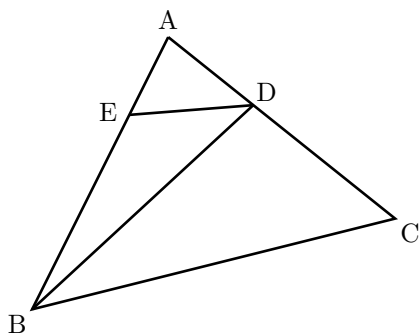
(3)  $BD : DC = 2 : 1$ ,  $AE : ED = 2 : 3$



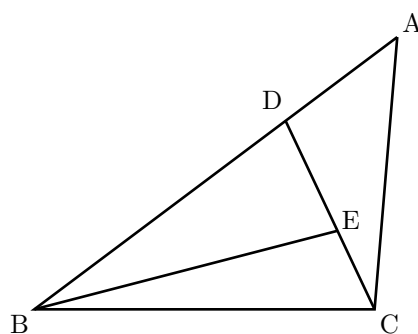
(4)  $AD : DB = 5 : 6$ ,  $BE : EC = 5 : 3$



(5)  $AD : DC = 3 : 5$ ,  $AE : EB = 2 : 5$

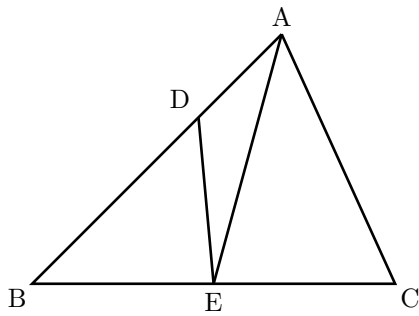


(6)  $AD : DB = 4 : 9$ ,  $CE : ED = 5 : 7$

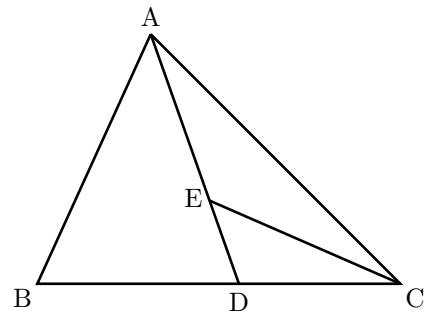


2. 下図の三角形の内部に面積比を書き込め。(S級1分30秒, A級2分20秒, B級4分, C級6分)

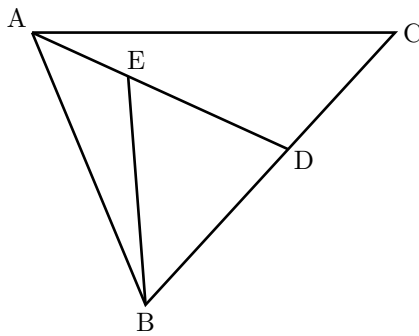
(1)  $AD : DB = 1 : 2$ ,  $BE : EC = 1 : 1$



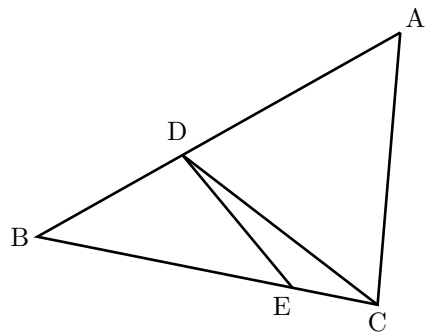
(2)  $BD : DC = 5 : 4$ ,  $AE : ED = 3 : 1$



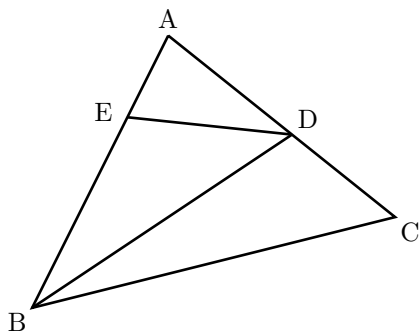
(3)  $BD : DC = 4 : 3$ ,  $AE : ED = 3 : 5$



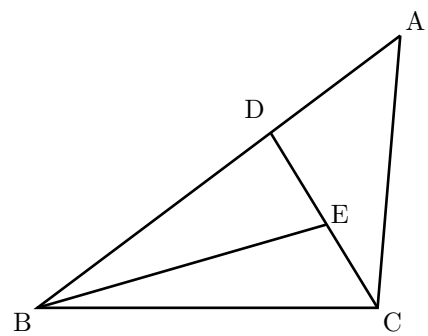
(4)  $AD : DB = 3 : 2$ ,  $BE : EC = 5 : 1$



(5)  $AD : DC = 6 : 5$ ,  $AE : EB = 2 : 7$



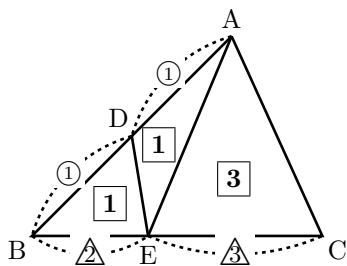
(6)  $AD : DB = 5 : 9$ ,  $CE : ED = 10 : 11$



# 反射テスト 面積比 三角形 in 三角形 03 解答解説

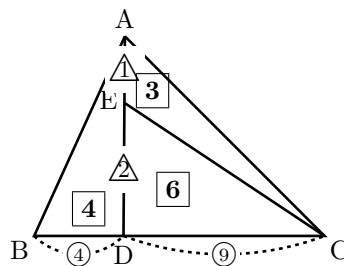
1. 下図の三角形の内部に面積比を書き込め。(S級1分20秒, A級2分, B級3分30秒, C級5分)

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



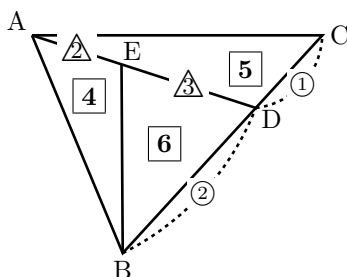
$$\begin{aligned} \triangle ADE : \triangle BED : \triangle AEC \\ &= (1 \times 2) : (1 \times 2) : (2 \times 3) \\ &= 2 : 2 : 6 = 1 : 1 : 3 \end{aligned}$$

(2)  $BD : DC = 4 : 9, AE : ED = 1 : 2$



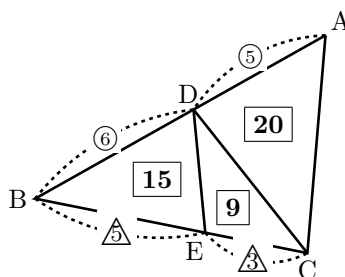
$$\begin{aligned} \triangle ABD : \triangle CED : \triangle AEC \\ &= (4 \times 3) : (9 \times 2) : (9 \times 2) \\ &= 12 : 18 : 18 = 4 : 6 : 6 = 4 : 6 : 3 \end{aligned}$$

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



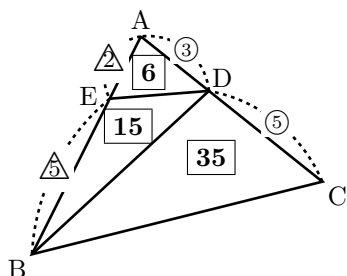
$$\begin{aligned} \triangle ABE : \triangle BDE : \triangle ADC \\ &= (2 \times 2) : (2 \times 3) : (1 \times 5) \\ &= 4 : 6 : 5 \end{aligned}$$

(4)  $AD : DB = 5 : 6, BE : EC = 5 : 3$



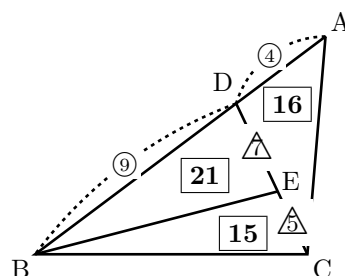
$$\begin{aligned} \triangle BED : \triangle CDE : \triangle ADC \\ &= (6 \times 5) : (6 \times 3) : (5 \times 4) \\ &= 30 : 18 : 20 = 15 : 9 : 10 \end{aligned}$$

(5)  $AD : DC = 3 : 5, AE : EB = 2 : 5$



$$\begin{aligned} \triangle AED : \triangle BDE : \triangle BCD \\ &= (3 \times 2) : (3 \times 5) : (5 \times 7) \\ &= 6 : 15 : 35 \end{aligned}$$

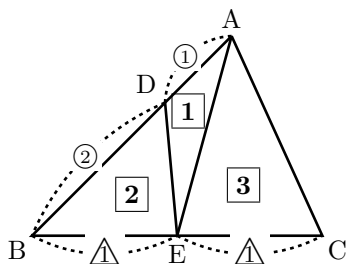
(6)  $AD : DB = 4 : 9, CE : ED = 5 : 7$



$$\begin{aligned} \triangle DBE : \triangle EBC : \triangle ADC \\ &= (9 \times 7) : (9 \times 5) : (4 \times 12) \\ &= 63 : 45 : 48 = 21 : 15 : 16 \end{aligned}$$

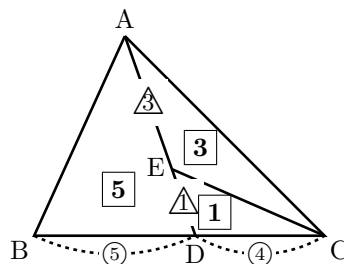
2. 下図の三角形の内部に面積比を書き込め。(S級1分30秒, A級2分20秒, B級4分, C級6分)

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



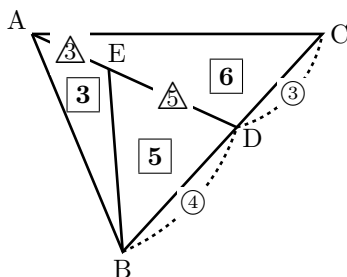
$$\begin{aligned} \triangle ADE : \triangle BED : \triangle AEC \\ &= (1 \times 1) : (2 \times 1) : (3 \times 1) \\ &= 1 : 2 : 3 \end{aligned}$$

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



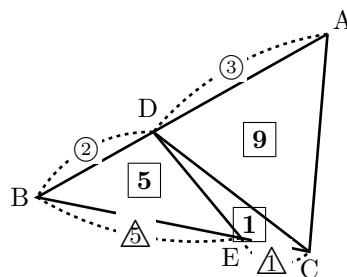
$$\begin{aligned} \triangle ABD : \triangle CED : \triangle AEC \\ &= (5 \times 4) : (4 \times 1) : (4 \times 1) \\ &= 20 : 4 : 12 = 5 : 1 : 3 \end{aligned}$$

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



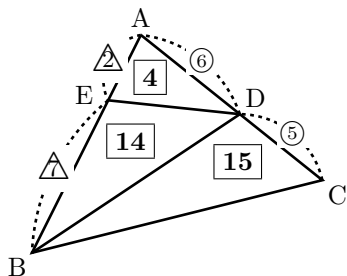
$$\begin{aligned} \triangle ABE : \triangle BDE : \triangle ADC \\ &= (4 \times 3) : (4 \times 3) : (3 \times 3) \\ &= 12 : 20 : 24 = 3 : 5 : 6 \end{aligned}$$

(4)  $AD : DB = 3 : 2$ ,  $BE : EC = 5 : 1$



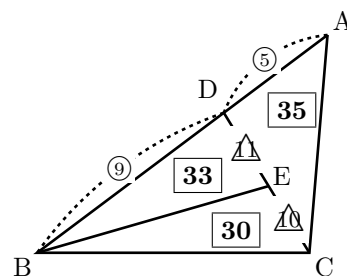
$$\begin{aligned} \triangle BED : \triangle CDE : \triangle ADC \\ &= (2 \times 5) : (2 \times 1) : (3 \times 1) \\ &= 10 : 2 : 18 = 5 : 1 : 9 \end{aligned}$$

(5)  $AD : DC = 6 : 5$ ,  $AE : EB = 2 : 7$



$$\begin{aligned} \triangle AED : \triangle BDE : \triangle BCD \\ &= (6 \times 2) : (6 \times 2) : (5 \times 2) \\ &= 12 : 42 : 45 = 4 : 14 : 15 \end{aligned}$$

(6)  $AD : DB = 5 : 9$ ,  $CE : ED = 10 : 11$



$$\begin{aligned} \triangle DBE : \triangle EBC : \triangle ADC \\ &= (9 \times 11) : (9 \times 10) : (5 \times 11) \\ &= 99 : 90 : 105 = 33 : 30 : 35 \end{aligned}$$