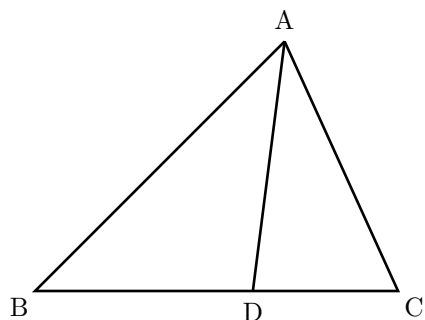


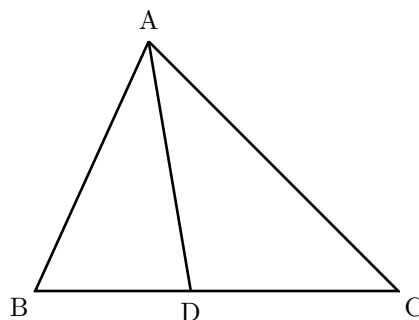
反射テスト 面積比 三角形 02

1. 下図の三角形の内部に面積比を書き込め。(S級 20秒, A級 40秒, B級 1分10秒, C級 2分)

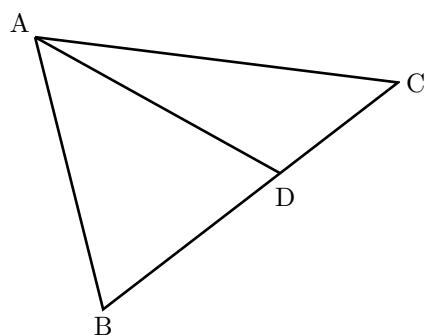
(1) $BD : DC = 2 : 1$



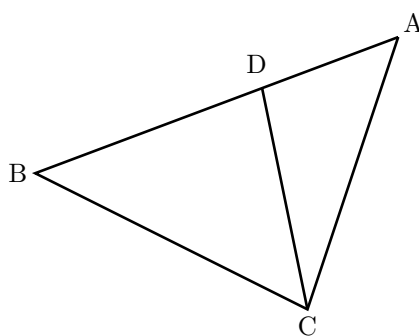
(2) $BD : DC = 12 : 16$



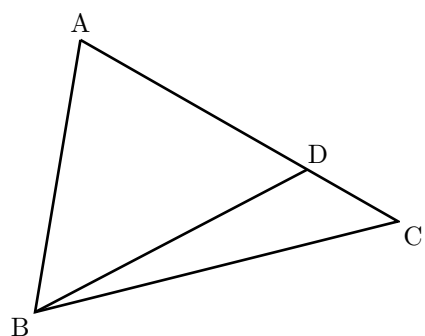
(3) $BD : DC = 72 : 54$



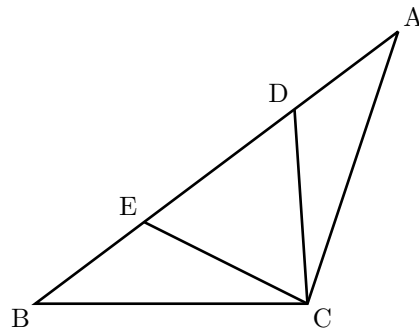
(4) $AD : DB = 1.2 : 2$



(5) $AD : DC = 1\frac{2}{3} : \frac{1}{2}$

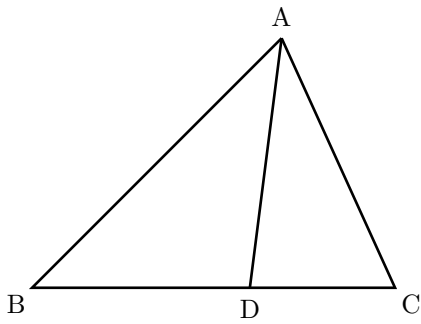


(6) $AD : DE : EB = 1.5 : 2.5 : 2$

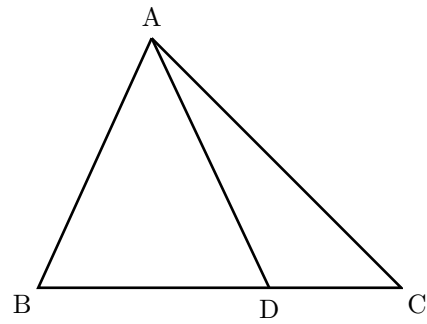


2. 下図の三角形の内部に面積比を書き込め。(S級 25秒, A級 45秒, B級 1分 20秒, C級 2分 30秒)

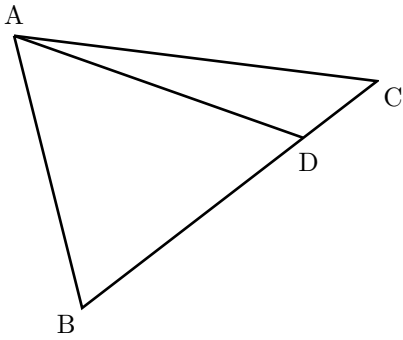
(1) $BD : DC = 300 : 200$



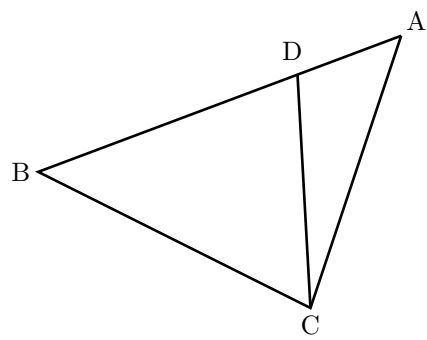
(2) $BD : DC = 4.9 : 2.8$



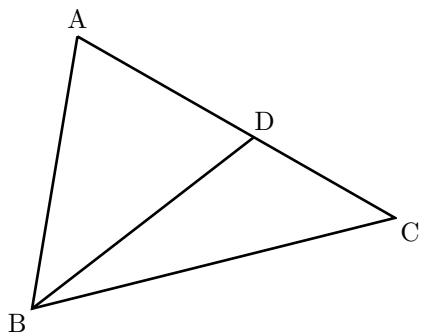
(3) $BD : DC = 42 : 14$



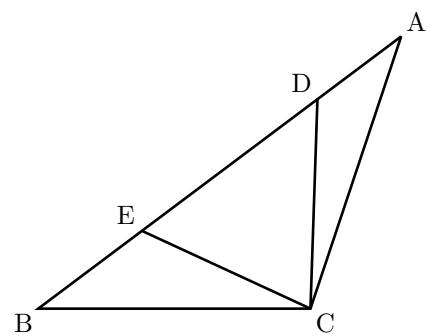
(4) $AD : DB = 1.2 : 3$



(5) $AD : DC = \frac{4}{5} : 0.7$

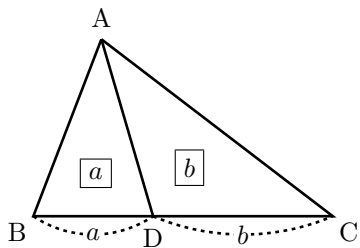


(6) $AD : DE : EB = 1\frac{3}{4} : 2.5 : 2$



反射テスト 面積比 三角形 02 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 20秒, A級 40秒, B級 1分10秒, C級 2分)



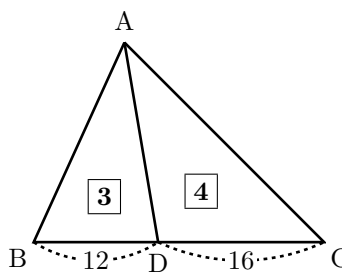
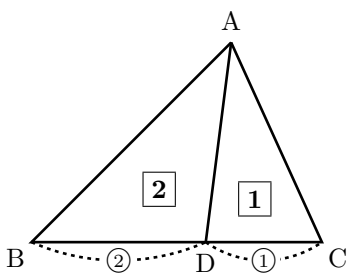
★ 図形の基本は三角形 (最重要格言)

$$BD : DC = a : b \Leftrightarrow \triangle ABD : \triangle ACD = a : b$$

高さが等しい三角形であるから、底辺比 = 面積比

(1) $BD : DC = 2 : 1$

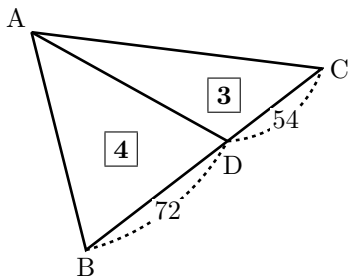
(2) $BD : DC = 12 : 16$



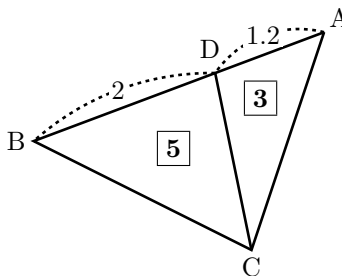
$$12 : 16 = 3 : 4$$

(3) $BD : DC = 72 : 54$

(4) $AD : DB = 1.2 : 2$



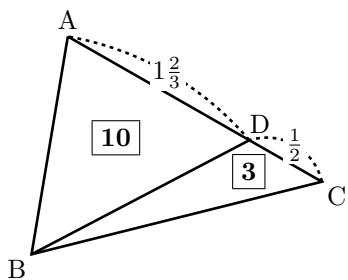
$$72 : 54 = 4 : 3$$



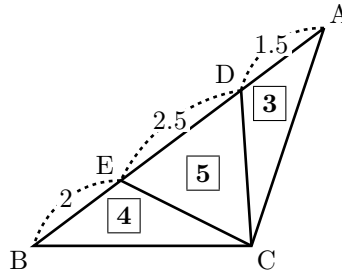
$$1.2 : 2 = 12 : 20 = 3 : 5$$

(5) $AD : DC = 1\frac{2}{3} : \frac{1}{2}$

(6) $AD : DE : EB = 1.5 : 2.5 : 2$



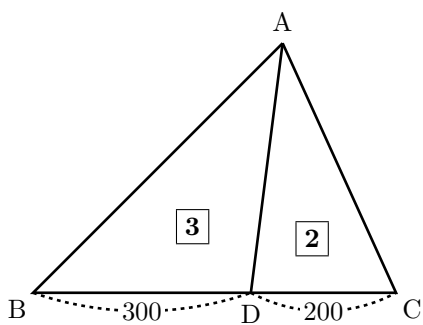
$$1\frac{2}{3} : \frac{1}{2} = \frac{5}{3} : \frac{1}{2} = (5 \times 2) : (1 \times 3) = 10 : 3$$



$$1.5 : 2.5 : 2 = (1.5 \times 2) : (2.5 \times 2) : (2 \times 2) = 3 : 5 : 4$$

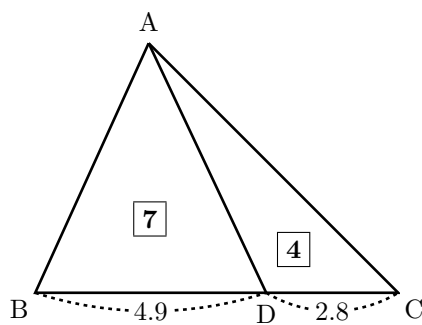
2. 下図の三角形の内部に面積比を書き込め。(S級 25秒, A級 45秒, B級 1分20秒, C級 2分30秒)

(1) $BD : DC = 300 : 200$



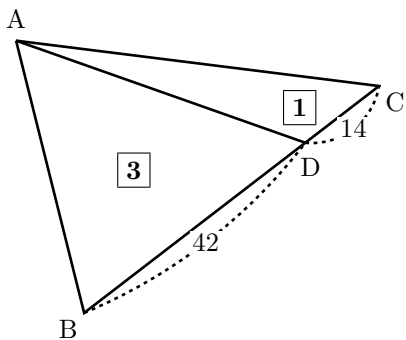
$$300 : 200 = 3 : 2$$

(2) $BD : DC = 4.9 : 2.8$



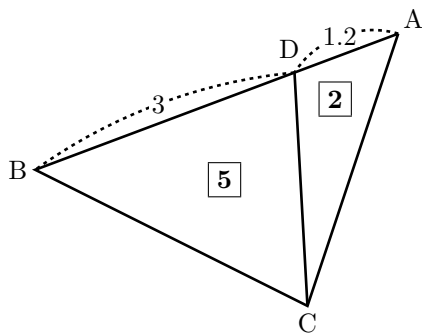
$$4.9 : 2.8 = 49 : 28 = 7 : 4$$

(3) $BD : DC = 42 : 14$



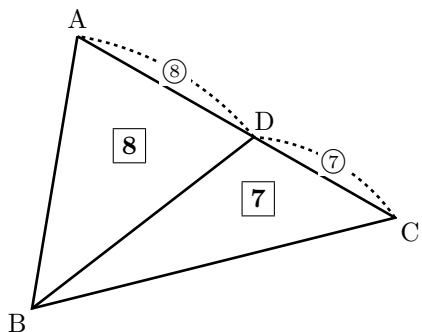
$$42 : 14 = 3 : 1$$

(4) $AD : DB = 1.2 : 3$



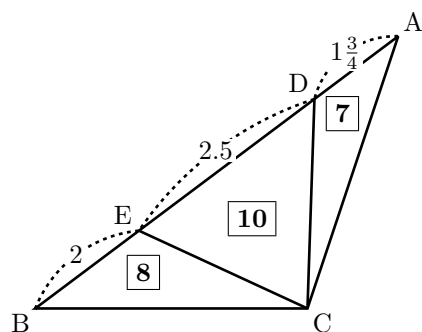
$$1.2 : 3 = 12 : 30 = 2 : 5$$

(5) $AD : DC = \frac{4}{5} : 0.7$



$$\frac{4}{5} : 0.7 = 0.8 : 0.7 = 8 : 7$$

(6) $AD : DE : EB = 1\frac{3}{4} : 2.5 : 2$



$$1\frac{3}{4} : 2.5 : 2 = \frac{7}{4} : \frac{5}{2} : 2 = \frac{7}{4} : \frac{10}{4} : \frac{8}{4} = 7 : 10 : 8$$