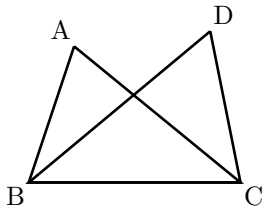


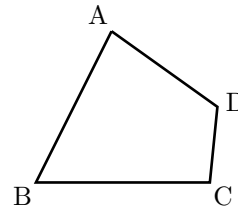
反射テスト 面積 等積変形の逆 01

1. 下図に平行記号を書きいれよ。(S級 30秒, A級 45秒, B級 1分20秒, C級 2分)

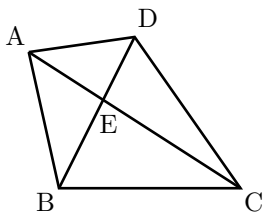
(1) $\triangle ABC = \triangle DBC$



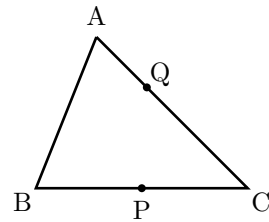
(2) $\triangle ACD = \triangle BCD$



(3) $\triangle AED = \triangle EBC$

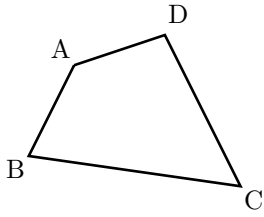


(4) $\triangle APC = \triangle QBC$

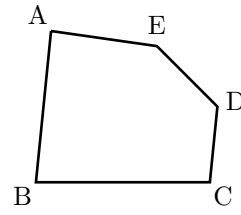


2. 下図に平行記号を書きいれよ。(S級45秒, A級1分10秒, B級1分50秒, C級3分)

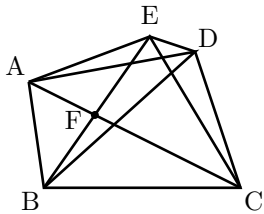
(1) $\triangle BDA = \triangle CAD$



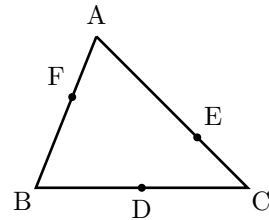
(2) $\triangle BCD = \triangle CDE$



(3) $\triangle ABF = \triangle CEF$

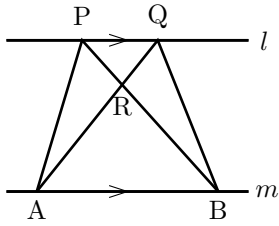


(4) $\triangle ABE = \text{四角形 AFDE}$



反射テスト 面積 等積変形の逆 01 解答解説

1. 下図に平行記号を書きいれよ。(S級 30秒, A級 45秒, B級 1分20秒, C級 2分)



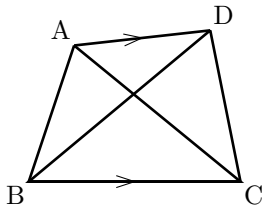
★ 平行⇔等積変形

$$l // m \Leftrightarrow \begin{cases} \textcircled{1} \triangle PAB = \triangle QAB & \because \text{底辺, 高さが等しい} \\ \textcircled{2} \triangle PAR = \triangle QBR \text{ (蝶々の形)} & \because \textcircled{1} \text{の両辺} - \triangle RAB \end{cases}$$

☆蝶々を上下に挟む線が平行

(1) $\triangle ABC = \triangle DBC$

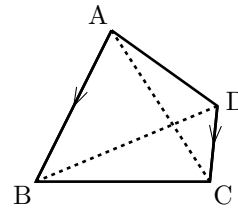
(2) $\triangle ACD = \triangle BCD$



★等積変形①の逆

$$\triangle ABC = \triangle DBC$$

$$\Leftrightarrow AD // BC$$



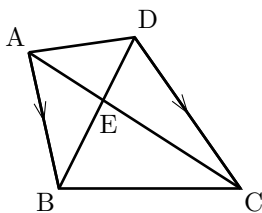
★等積変形①の逆

$$\triangle ACD = \triangle BCD$$

$$\Leftrightarrow AB // CD$$

(3) $\triangle AED = \triangle EBC$

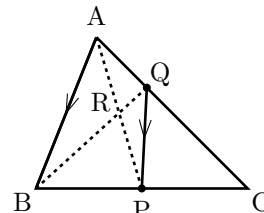
(4) $\triangle APC = \triangle QBC$



★等積変形②の逆

$$\triangle AED = \triangle EBC$$

$$\Leftrightarrow AB // DC$$



★共通部分を引く!

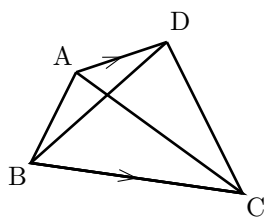
$$\begin{aligned} \triangle APC &= \triangle QBC \\ \Rightarrow \triangle APC - \triangle RQC &= \triangle QBC - \triangle RQC \\ \Rightarrow \triangle AQR &= \triangle RPB \end{aligned}$$

★等積変形②の逆

$$\begin{aligned} \triangle AQR &= \triangle RPB \\ \Leftrightarrow QR &// AB \\ &\text{(蝶々を上下に挟む線が平行)} \end{aligned}$$

2. 下図に平行記号を書きいれよ。(S級45秒, A級1分10秒, B級1分50秒, C級3分)

(1) $\triangle BDA = \triangle CAD$

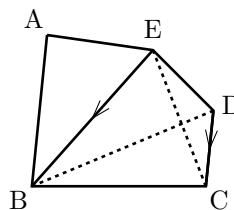


★等積変形①の逆

$$\triangle BDA = \triangle CAD$$

$$\Leftrightarrow \mathbf{AD \parallel BC}$$

(2) $\triangle BCD = \triangle CDE$

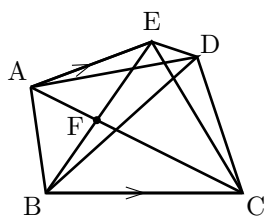


★等積変形①の逆

$$\triangle BCD = \triangle CDE$$

$$\Leftrightarrow \mathbf{EB \parallel DC}$$

(3) $\triangle ABF = \triangle CEF$

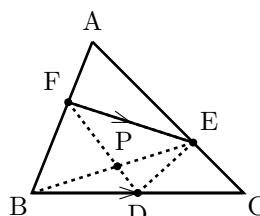


★等積変形②の逆

$$\triangle ABF = \triangle CEF$$

$$\Leftrightarrow \mathbf{AE \parallel BC}$$

(4) $\triangle ABE = \text{四角形 AFDE}$



★共通部分を引く!

$$\triangle ABE = \text{四角形 AFDE}$$

$$\Rightarrow \triangle ABE - \triangle AFPE = \text{四角形 AFDE} - \triangle AFPE$$

$$\Rightarrow \triangle PFB = \triangle PED$$

★等積変形②の逆

$$\triangle PFB = \triangle PED$$

$$\Leftrightarrow \mathbf{FE \parallel BC}$$

(蝶々を上下に挟む線が平行)