

解答編

今月の1問

10月

△ABIと△ABCで、面積比は1:7より

$$AI:AC=1:7 \therefore AI=1/7AC \dots \textcircled{1}$$

$$AI:IC=\textcircled{1}:\textcircled{6} \text{より} \therefore AI=1/6IC \dots \textcircled{2}$$

△IDHと△IDCで、面積比は1:5より

$$IH:IC=1:5 \therefore IH=1/5IC \dots \textcircled{3}$$

$$IH:HC=\textcircled{1}:\textcircled{4} \therefore IH=1/4HC \dots \textcircled{4}$$

△HEGと△HECで、面積比は1:3より

$$HG:HC=1:3 \therefore HG=1/3HC \dots \textcircled{5}$$

$$HG:GC=\textcircled{1}:\textcircled{2} \therefore HG=1/2GC \dots \textcircled{6}$$

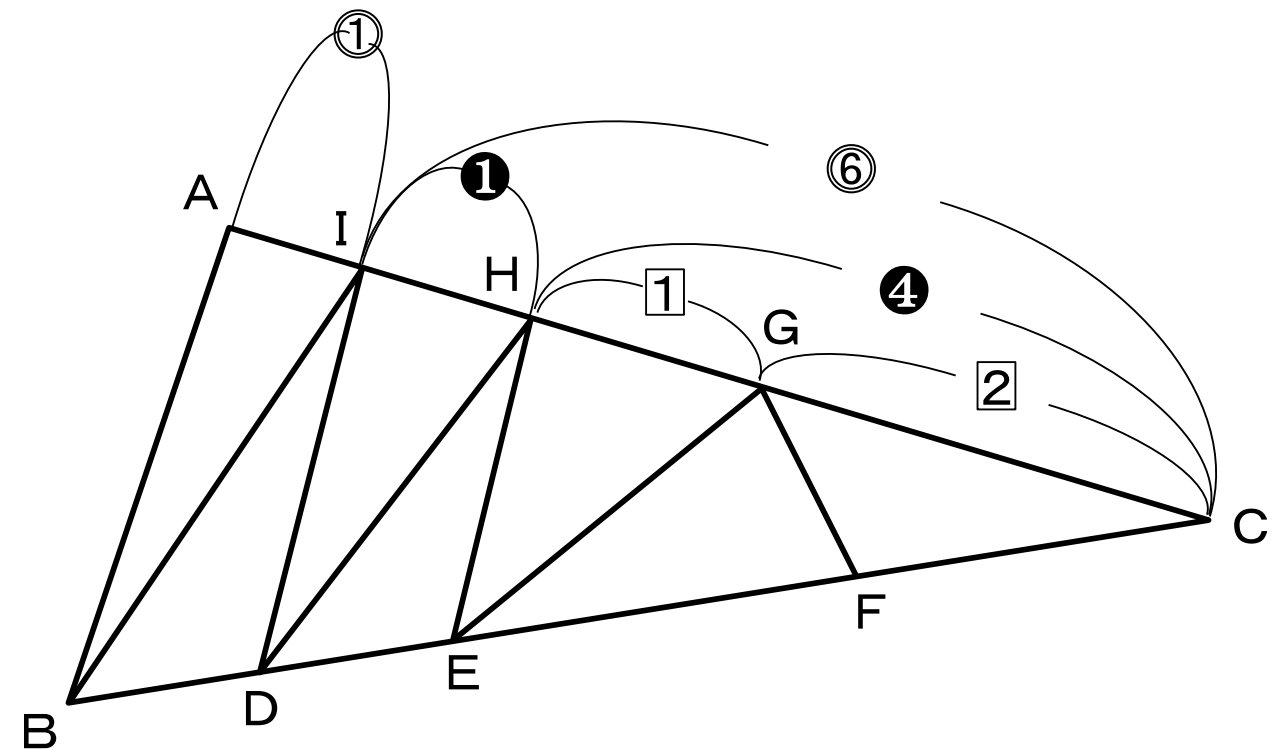
$$\textcircled{6}、\textcircled{5}、\textcircled{4}、\textcircled{3}、\textcircled{2}、\textcircled{1} \text{より} GC=2HG=2/3HC=8/3IH=8/15IC=16/5AI=16/35AC$$

$$2HG=16/35AC \text{より} HG=8/35AC、8/3IH=16/35AC \text{より} IH=6/35AC$$

$$AI=1/7AC=5/35AC \text{ したがって}$$

$$AI:IH:HG:GC=5/35AC:6/35AC:8/35AC:16/35AC$$

$$=5:6:8:16$$



答え 5:6:8:16