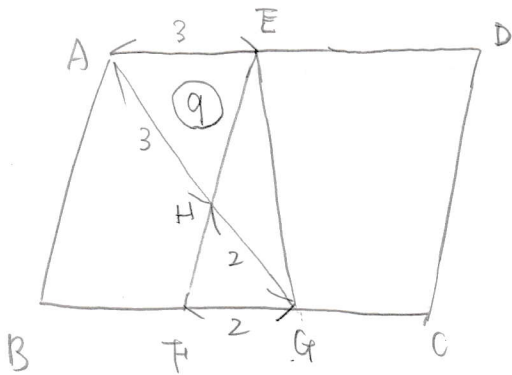


$\angle BAD = 140^\circ$  なのて

$\angle ADC = 180^\circ - 140^\circ = 40^\circ$

よて

$\angle ADC = 40^\circ$



$AE = \frac{1}{2} AD, FG = \frac{1}{3} BC$

$AD = BC$  より

$AE : FG = \frac{1}{2} : \frac{1}{3} = 3 : 2$  ... ①

$\triangle AHE$  と  $\triangle GHF$  より

$AH : GH = 3 : 2$  (①より)

よて

$\triangle AHE : \triangle EHG = 3 : 2$

① :  $\triangle EHG = 3 : 2$

$\triangle EHG = ⑥$  ... ②

面積比

$\triangle AHE : \triangle GHF = 3^2 : 2^2 = 9 : 4$

① :  $\triangle GHF = 9 : 4$

$\triangle GHF = ④$  ... ③

$\triangle EFG = \triangle EHG + \triangle GHF$

$= ⑥ + ④$

$= ⑩$

よて

$\triangle EFG = 10$

別解

$\triangle EFG$  は  $\triangle AHE$  の底辺が  $\frac{2}{3}$  倍

高さ  $\frac{5}{3}$  倍なのて

$\triangle EFG = ⑨ \times \frac{2}{3} \times \frac{5}{3} = ⑩$

よて

$\triangle EFG = 10$