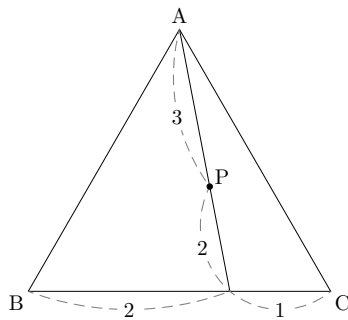


解答

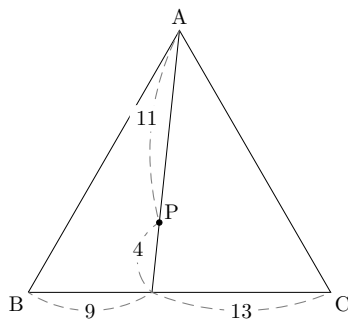
1. ベクトルの応用 1 (内分外分)

(1)



$$\begin{aligned}\overrightarrow{AP} &= \frac{\overrightarrow{AB} + 2\overrightarrow{AC}}{5} \\ &= \frac{2+1}{5} \times \frac{\overrightarrow{AB} + 2\overrightarrow{AC}}{2+1} \\ &= \frac{3}{5} \times \frac{\overrightarrow{AB} + 2\overrightarrow{AC}}{2+1}\end{aligned}$$

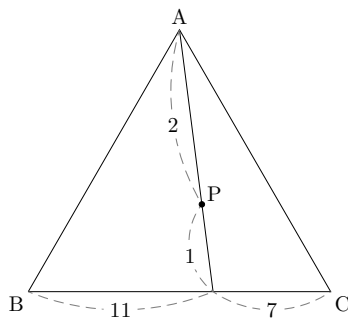
(2)



$$\begin{aligned}\overrightarrow{AP} &= \frac{13\overrightarrow{AB} + 9\overrightarrow{AC}}{30} \\ &= \frac{9+13}{30} \times \frac{13\overrightarrow{AB} + 9\overrightarrow{AC}}{9+13} \\ &= \frac{11}{15} \times \frac{13\overrightarrow{AB} + 9\overrightarrow{AC}}{9+13}\end{aligned}$$

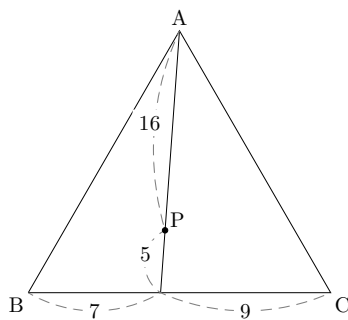
2. ベクトルの応用 1 (内分外分)

(1)



$$\begin{aligned}\overrightarrow{AP} &= \frac{7\overrightarrow{AB} + 11\overrightarrow{AC}}{27} \\ &= \frac{11+7}{27} \times \frac{7\overrightarrow{AB} + 11\overrightarrow{AC}}{11+7} \\ &= \frac{2}{3} \times \frac{7\overrightarrow{AB} + 11\overrightarrow{AC}}{11+7}\end{aligned}$$

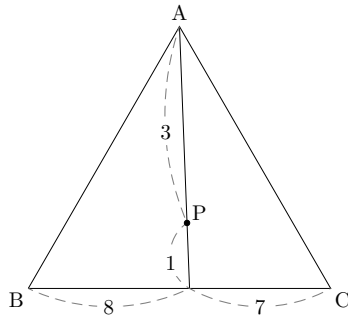
(2)



$$\begin{aligned}\overrightarrow{AP} &= \frac{9\overrightarrow{AB} + 7\overrightarrow{AC}}{21} \\ &= \frac{7+9}{21} \times \frac{9\overrightarrow{AB} + 7\overrightarrow{AC}}{7+9} \\ &= \frac{16}{21} \times \frac{9\overrightarrow{AB} + 7\overrightarrow{AC}}{7+9}\end{aligned}$$

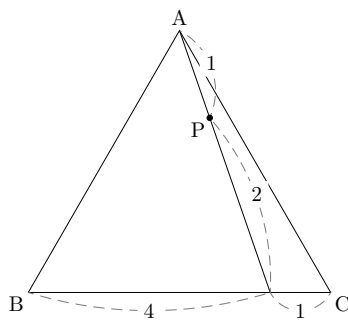
3. ベクトルの応用 1 (内分外分)

(1)



$$\begin{aligned}\vec{AP} &= \frac{7\vec{AB} + 8\vec{AC}}{20} \\ &= \frac{8+7}{20} \times \frac{7\vec{AB} + 8\vec{AC}}{8+7} \\ &= \frac{3}{4} \times \frac{7\vec{AB} + 8\vec{AC}}{8+7}\end{aligned}$$

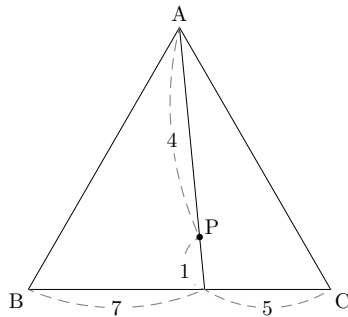
(2)



$$\begin{aligned}\vec{AP} &= \frac{\vec{AB} + 4\vec{AC}}{15} \\ &= \frac{4+1}{15} \times \frac{\vec{AB} + 4\vec{AC}}{4+1} \\ &= \frac{1}{3} \times \frac{\vec{AB} + 4\vec{AC}}{4+1}\end{aligned}$$

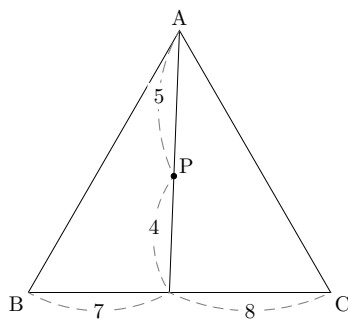
4. ベクトルの応用 1 (内分外分)

(1)



$$\begin{aligned}\vec{AP} &= \frac{5\vec{AB} + 7\vec{AC}}{15} \\ &= \frac{7+5}{15} \times \frac{5\vec{AB} + 7\vec{AC}}{7+5} \\ &= \frac{4}{5} \times \frac{5\vec{AB} + 7\vec{AC}}{7+5}\end{aligned}$$

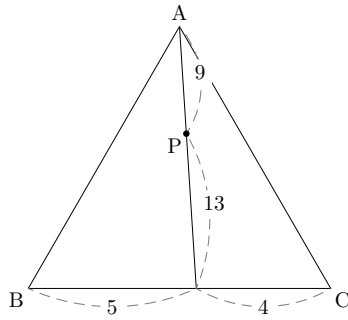
(2)



$$\begin{aligned}\vec{AP} &= \frac{8\vec{AB} + 7\vec{AC}}{27} \\ &= \frac{7+8}{27} \times \frac{8\vec{AB} + 7\vec{AC}}{7+8} \\ &= \frac{5}{9} \times \frac{8\vec{AB} + 7\vec{AC}}{7+8}\end{aligned}$$

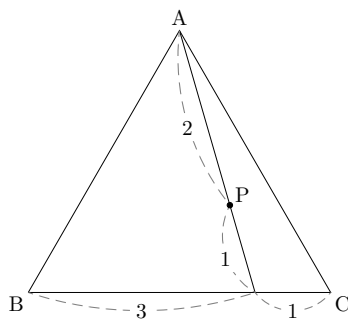
5. ベクトルの応用1 (内分外分)

(1)



$$\begin{aligned}\vec{AP} &= \frac{4\vec{AB} + 5\vec{AC}}{22} \\ &= \frac{5+4}{22} \times \frac{4\vec{AB} + 5\vec{AC}}{5+4} \\ &= \frac{9}{22} \times \frac{4\vec{AB} + 5\vec{AC}}{5+4}\end{aligned}$$

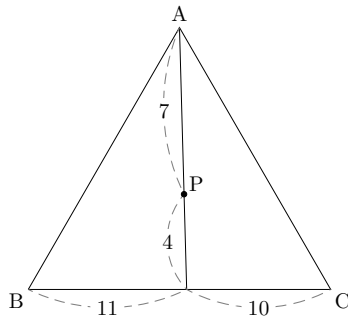
(2)



$$\begin{aligned}\vec{AP} &= \frac{\vec{AB} + 3\vec{AC}}{6} \\ &= \frac{3+1}{6} \times \frac{\vec{AB} + 3\vec{AC}}{3+1} \\ &= \frac{2}{3} \times \frac{\vec{AB} + 3\vec{AC}}{3+1}\end{aligned}$$

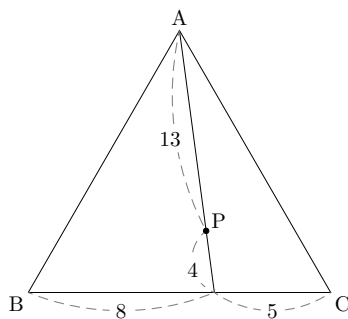
6. ベクトルの応用1 (内分外分)

(1)



$$\begin{aligned}\vec{AP} &= \frac{10\vec{AB} + 11\vec{AC}}{33} \\ &= \frac{11+10}{33} \times \frac{10\vec{AB} + 11\vec{AC}}{11+10} \\ &= \frac{7}{11} \times \frac{10\vec{AB} + 11\vec{AC}}{11+10}\end{aligned}$$

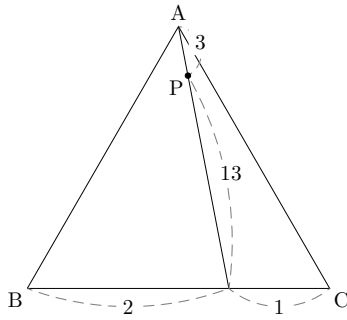
(2)



$$\begin{aligned}\vec{AP} &= \frac{5\vec{AB} + 8\vec{AC}}{17} \\ &= \frac{8+5}{17} \times \frac{5\vec{AB} + 8\vec{AC}}{8+5} \\ &= \frac{13}{17} \times \frac{5\vec{AB} + 8\vec{AC}}{8+5}\end{aligned}$$

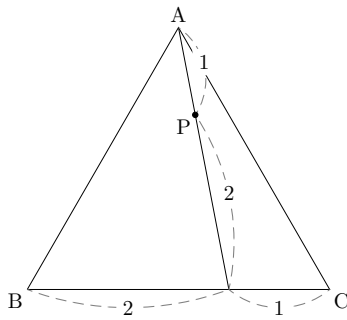
7. ベクトルの応用 1 (内分外分)

(1)



$$\begin{aligned}\vec{AP} &= \frac{\vec{AB} + 2\vec{AC}}{16} \\ &= \frac{2+1}{16} \times \frac{\vec{AB} + 2\vec{AC}}{2+1} \\ &= \frac{3}{16} \times \frac{\vec{AB} + 2\vec{AC}}{2+1}\end{aligned}$$

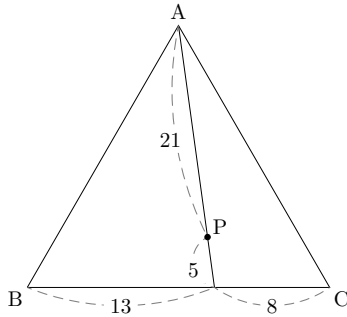
(2)



$$\begin{aligned}\vec{AP} &= \frac{\vec{AB} + 2\vec{AC}}{9} \\ &= \frac{2+1}{9} \times \frac{\vec{AB} + 2\vec{AC}}{2+1} \\ &= \frac{1}{3} \times \frac{\vec{AB} + 2\vec{AC}}{2+1}\end{aligned}$$

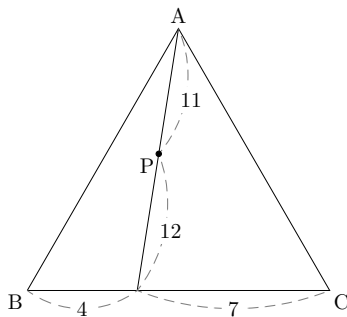
8. ベクトルの応用 1 (内分外分)

(1)



$$\begin{aligned}\vec{AP} &= \frac{8\vec{AB} + 13\vec{AC}}{26} \\ &= \frac{13+8}{26} \times \frac{8\vec{AB} + 13\vec{AC}}{13+8} \\ &= \frac{21}{26} \times \frac{8\vec{AB} + 13\vec{AC}}{13+8}\end{aligned}$$

(2)



$$\begin{aligned}\vec{AP} &= \frac{7\vec{AB} + 4\vec{AC}}{23} \\ &= \frac{4+7}{23} \times \frac{7\vec{AB} + 4\vec{AC}}{4+7} \\ &= \frac{11}{23} \times \frac{7\vec{AB} + 4\vec{AC}}{4+7}\end{aligned}$$