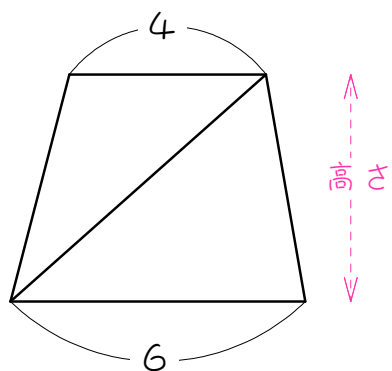


レベル1 対角線で分割

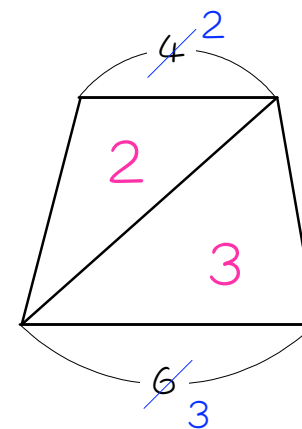
1

例にならって、各部分の面積比をかきこみなさい。※図形は全て台形です。

例

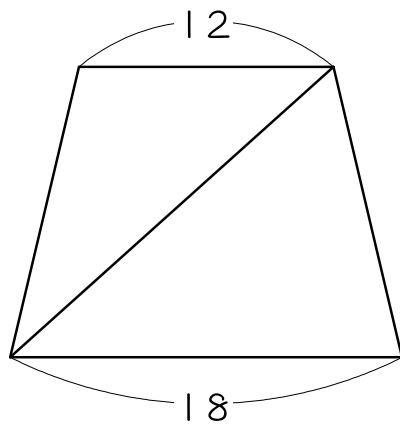


上の2つの三角形は
高さが等しいから、

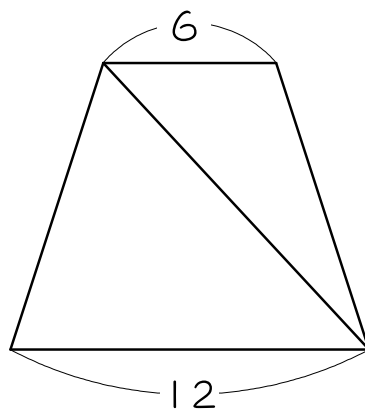


面積の比は、底辺の比
で決まります。

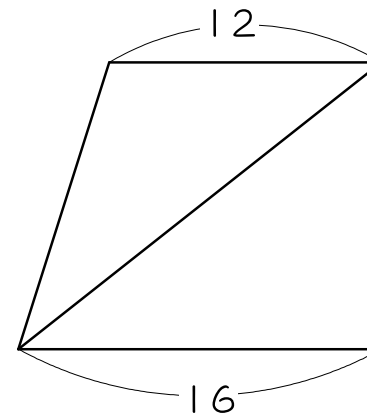
(1)



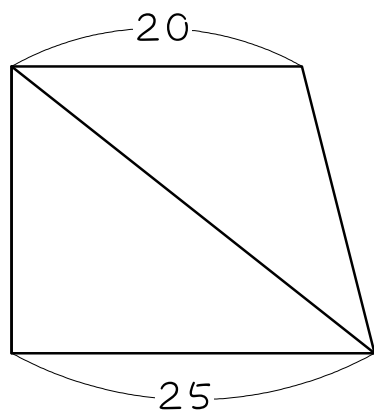
(2)



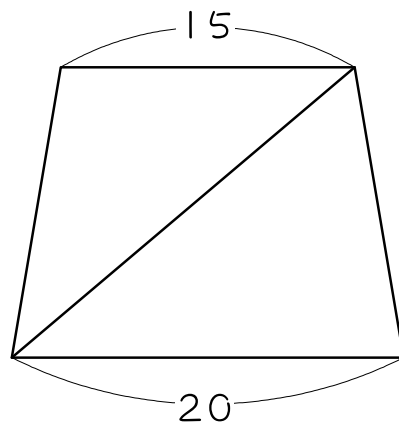
(3)



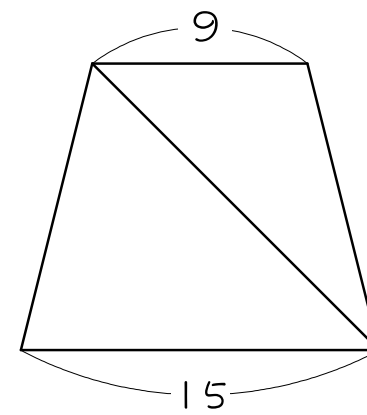
(4)



(5)



(6)

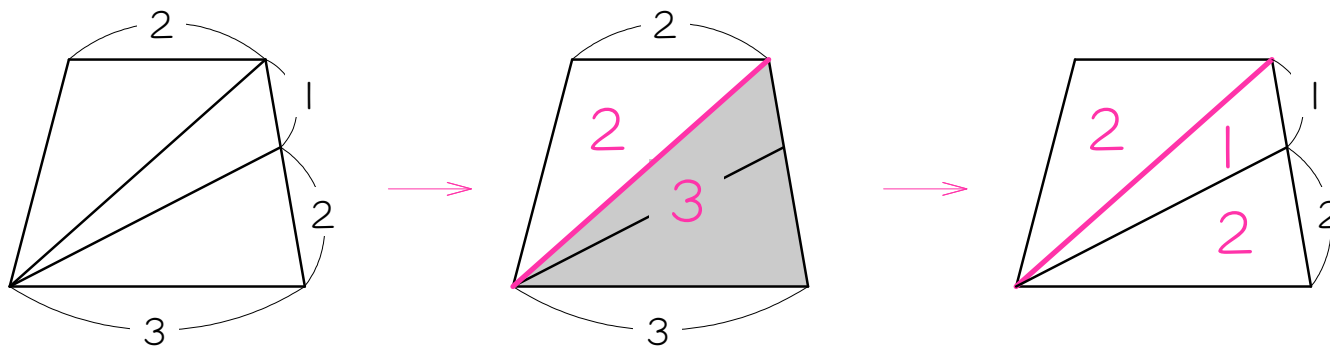


レベル2 まず対角線で分割

2

例にならって、各部分の面積比をかきこみなさい。

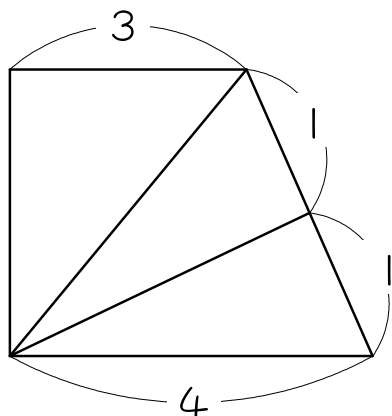
例



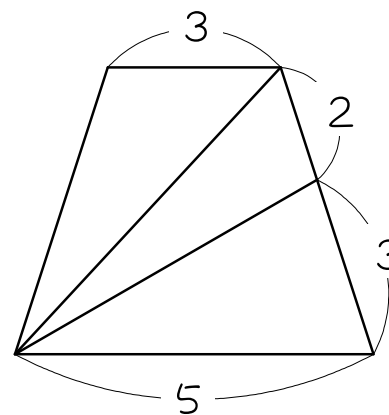
まず、台形を対角線で
2 : 3 に分ける

3 を 1 : 2 に
比例配分。完成！

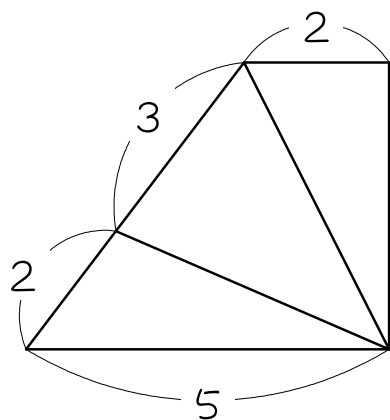
(1)



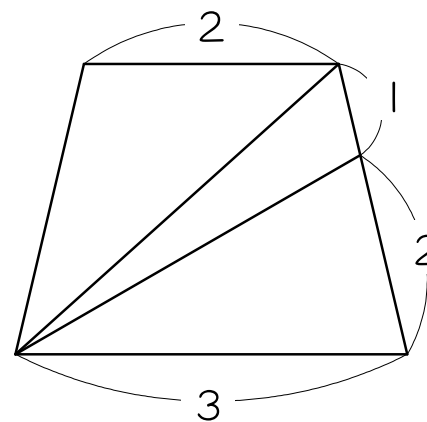
(2)



(3)



(4)

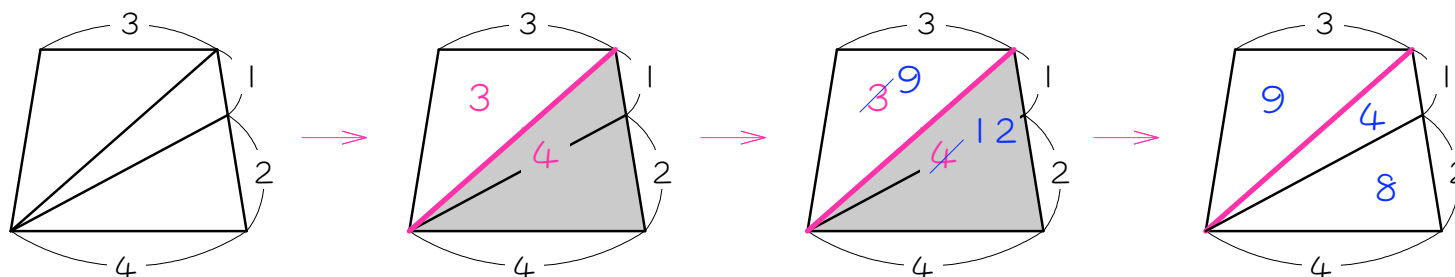


レベル3 比をきれいにする

3

例にならって、各部分の面積比をかきこみなさい。

例)

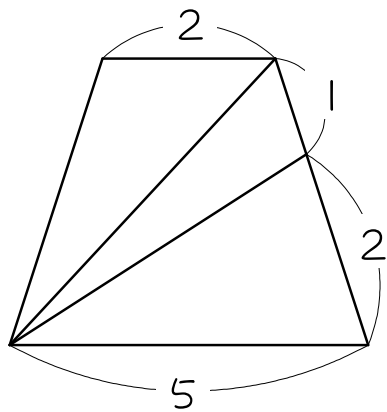


4が3で割れない
ので、比を全部3
倍してやり直し

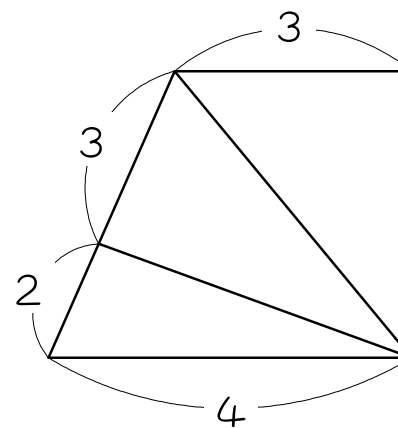
12を1:2に
比例配分

完成!

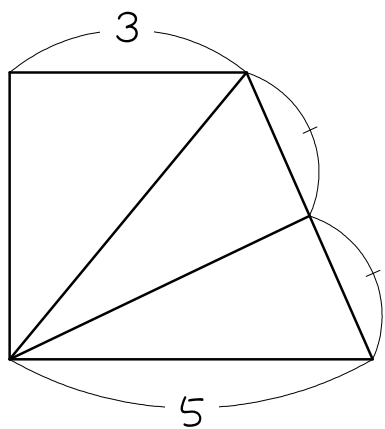
(1)



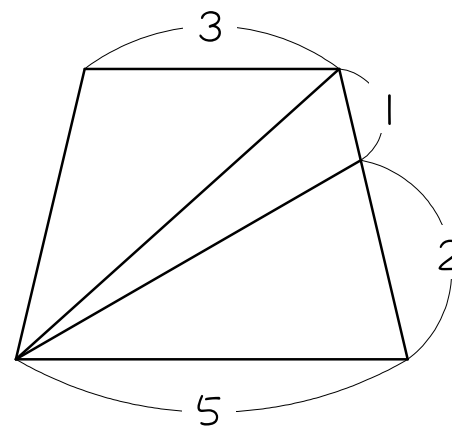
(2)



(3)



(4)

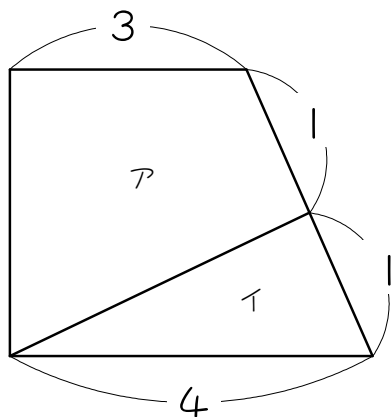


レベル4 補助線を引く - 補助線は対角線

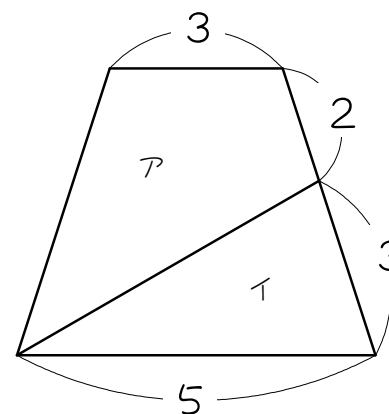
4

アとイの面積の比を求めなさい。

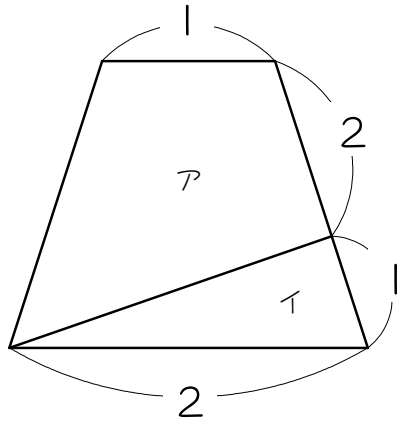
(1)



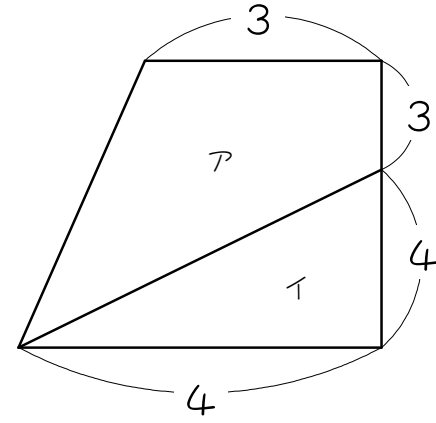
(2)



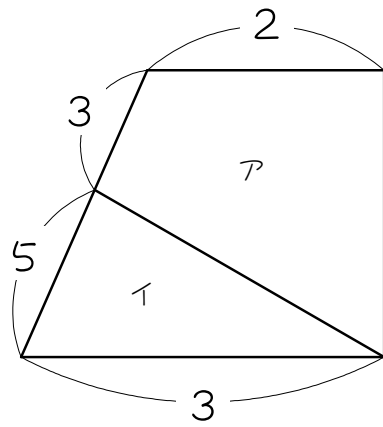
(3)



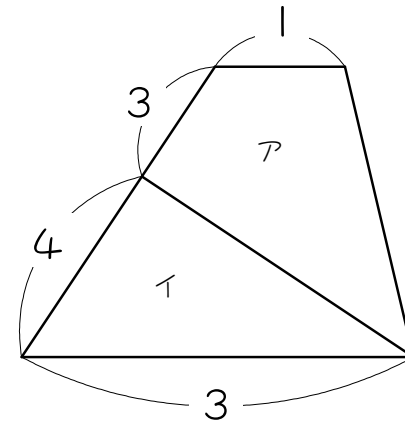
(4)



(5)



(6)

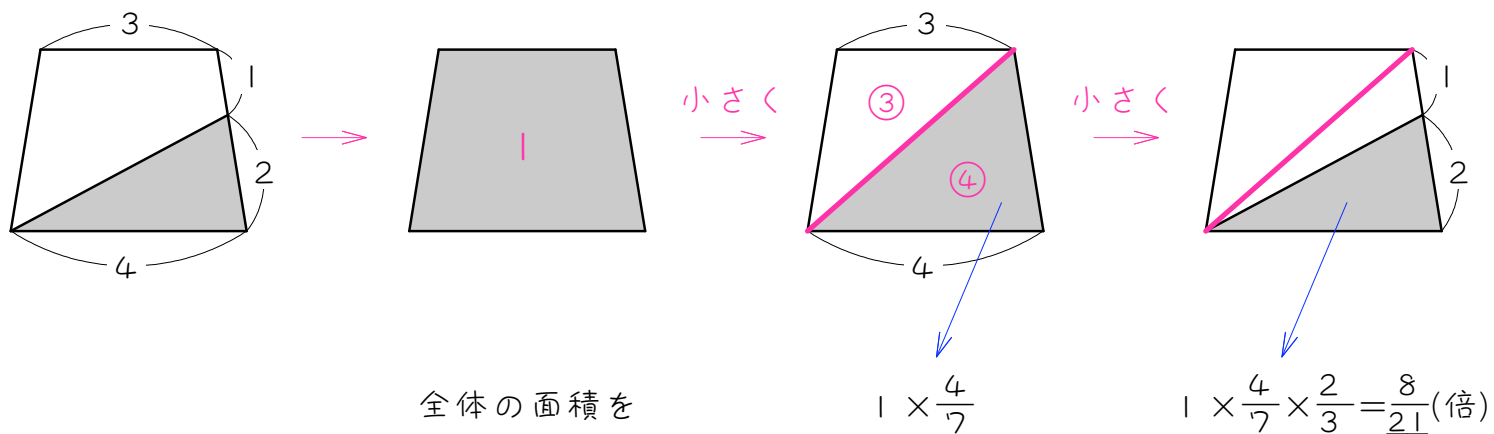


レベル5 全体の何倍かを求める - 補助線は対角線

5

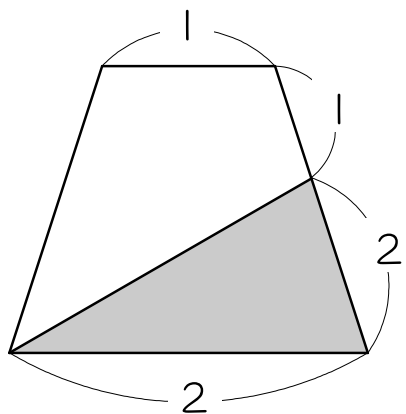
色のついた部分の面積は、全体の台形の面積の何倍ですか。

例)

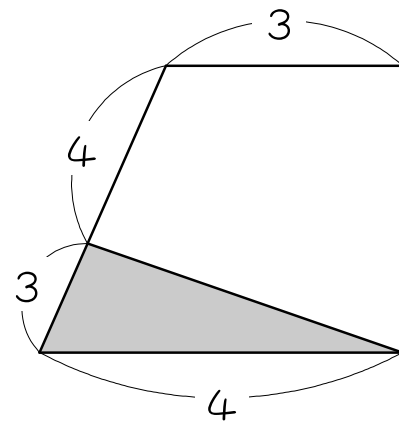


※「1」は省略してもよい。

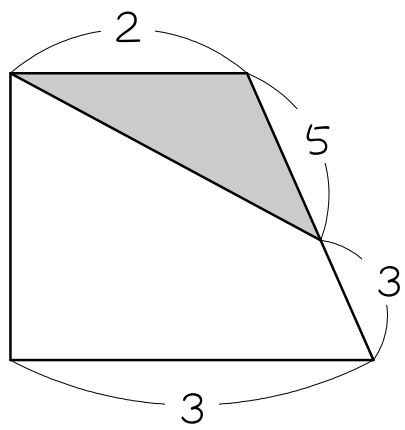
(1)



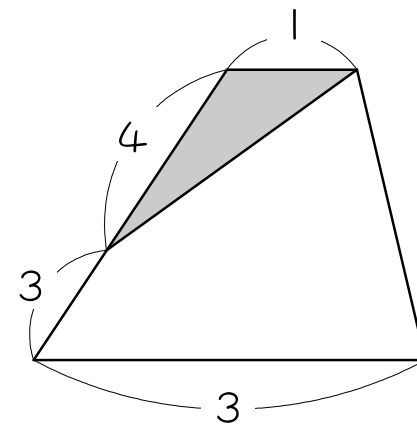
(2)



(3)



(4)

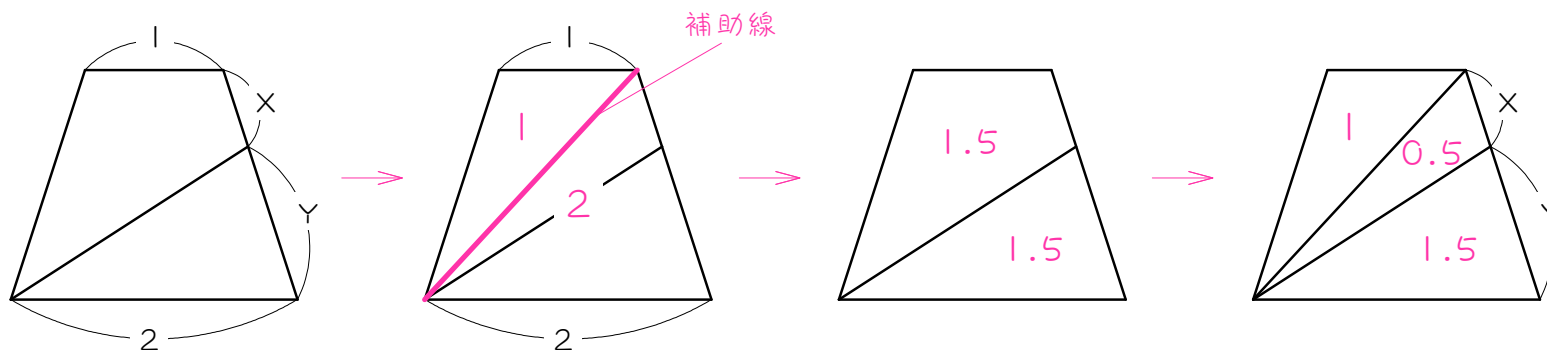


レベル6 面積2等分問題 - 対角線が補助線

6

台形の面積が2等分されているとき、 $X:Y$ を求めなさい。

例)

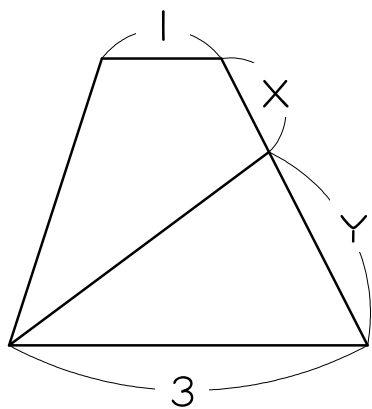


対角線で分割し、
面積を1と2とおく。
全体は、 $1 + 2 = 3$

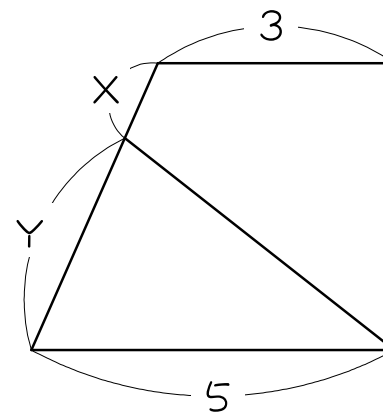
$$\begin{aligned} 3 \div 2 &= 1.5 \\ 1.5 - 1 &= 0.5 \\ 2 - 1.5 &= 0.5 \end{aligned}$$

$$\begin{aligned} X:Y &= 0.5 : 1.5 \\ &= \underline{1} : \underline{3} \end{aligned}$$

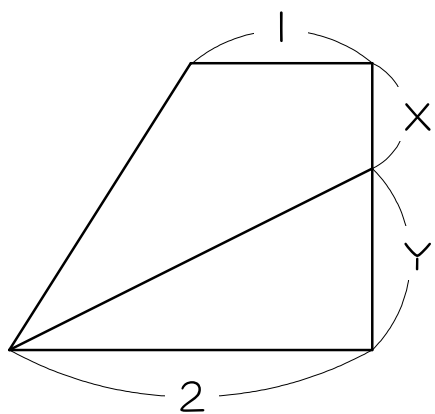
(1)



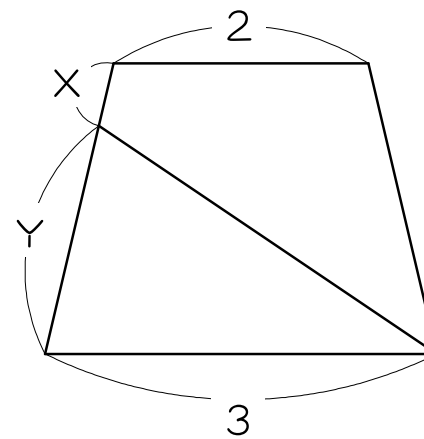
(2)



(3)



(4)

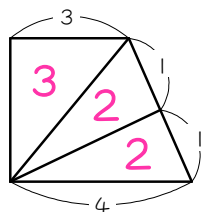


—— 解答 ——

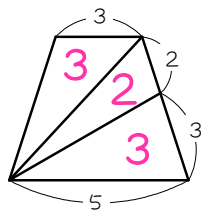
1 上：下の順に、

- (1) 2 : 3 (2) 1 : 2 (3) 3 : 4
 (4) 4 : 5 (5) 3 : 4 (6) 3 : 5

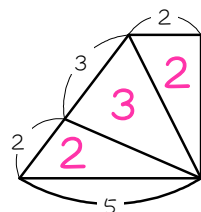
2 (1)



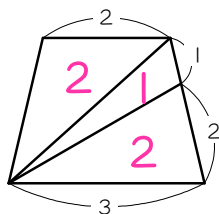
(2)



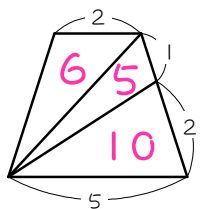
(3)



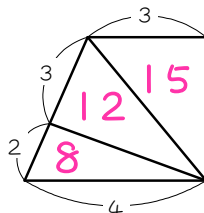
(4)



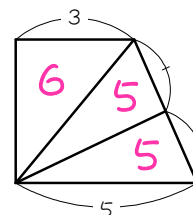
3 (1)



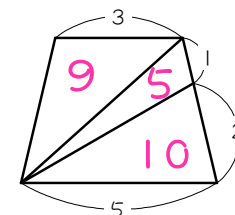
(2)



(3)

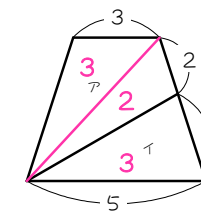
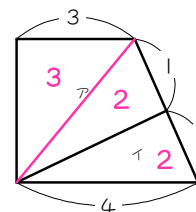


(4)



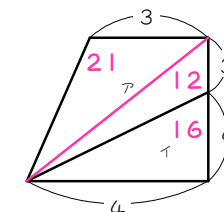
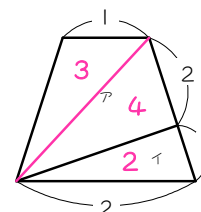
4 (1) 5 : 2

(2) 5 : 3



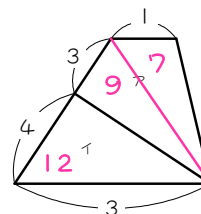
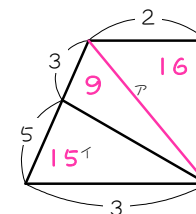
(3) 7 : 2

(4) 33 : 16

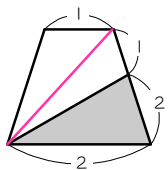


(5) $25 : 15 = 5 : 3$

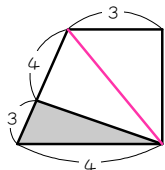
(6) $16 : 12 = 4 : 3$



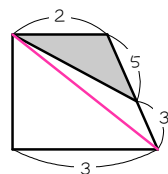
5 (1) $\frac{2}{3} \times \frac{2}{3} = \frac{4}{9}$ (倍)



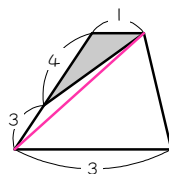
(2) $\frac{4}{7} \times \frac{3}{7} = \frac{12}{49}$ (倍)



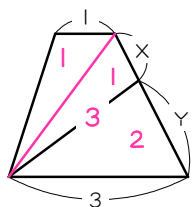
(3) $\frac{2}{5} \times \frac{5}{8} = \frac{1}{4}$ (倍)



(4) $\frac{1}{4} \times \frac{4}{7} = \frac{1}{7}$ (倍)

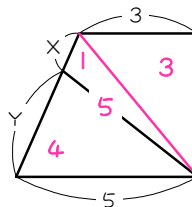


6 (1) 1 : 2



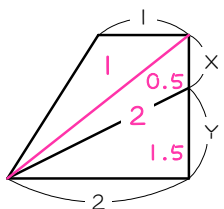
$1 + 3 = 4$
 $4 \div 2 = 2$
 $3 - 2 = 1$

(2) 1 : 4



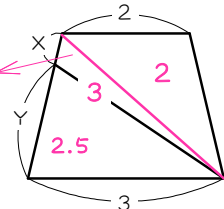
$3 + 5 = 8$
 $8 \div 2 = 4$
 $5 - 4 = 1$

(3) $0.5 : 1.5 = 1 : 3$



$1 + 2 = 3$
 $3 \div 2 = 1.5$
 $2 - 1.5 = 0.5$

(4) $0.5 : 2.5 = 1 : 5$



$2 + 3 = 5$
 $5 \div 2 = 2.5$
 $3 - 2.5 = 0.5$