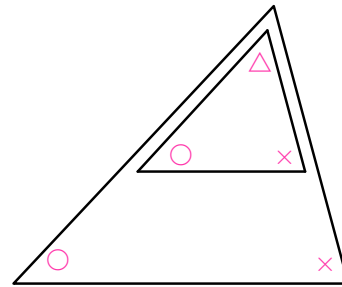
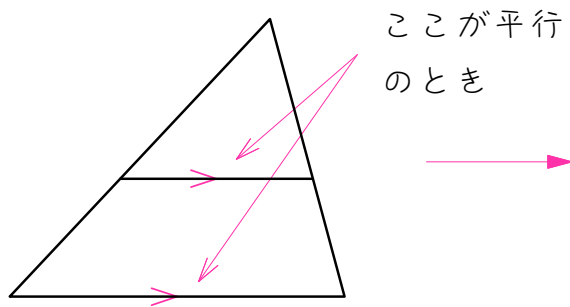
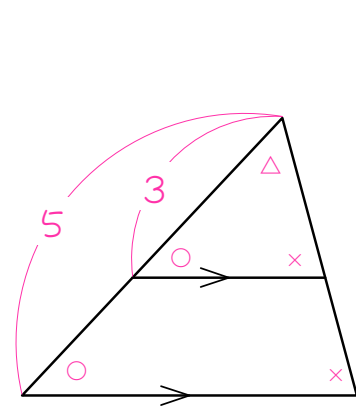


ピラミッド相似

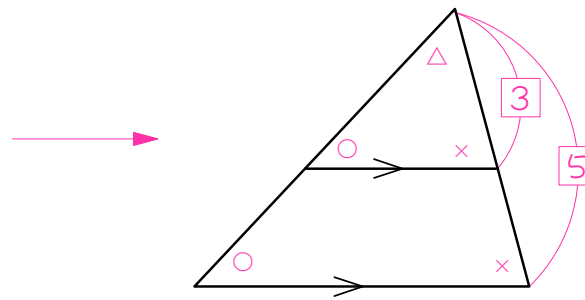


大小2つの三角形は角度
が全て等しくなります

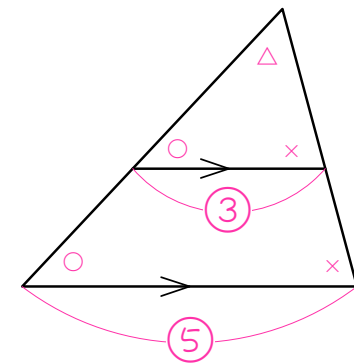
↓
相似



$\Delta \sim \bigcirc$ が 3 : 5 なら



$\Delta \sim \times$ も $\bigcirc \sim \times$ も 3 : 5

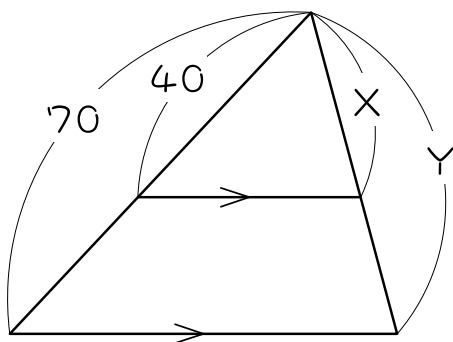


ステップ1 ピラミッド相似 - 長さの比を求める

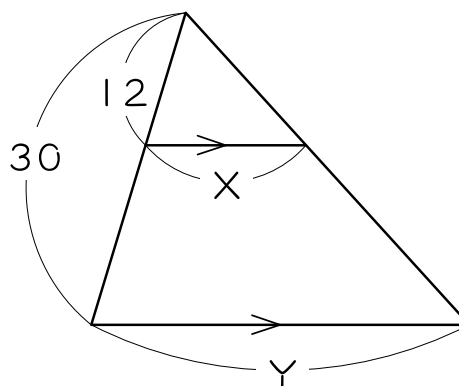
1

$x : y$ を求めなさい。

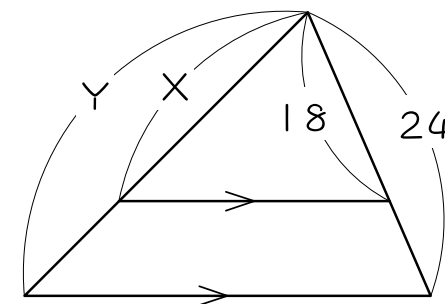
(1)



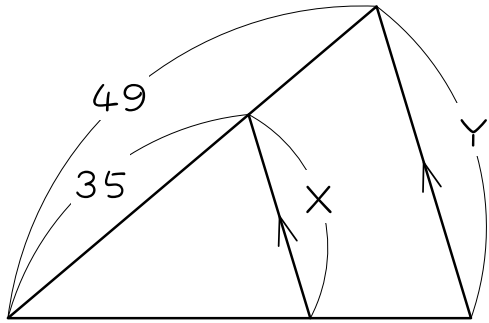
(2)



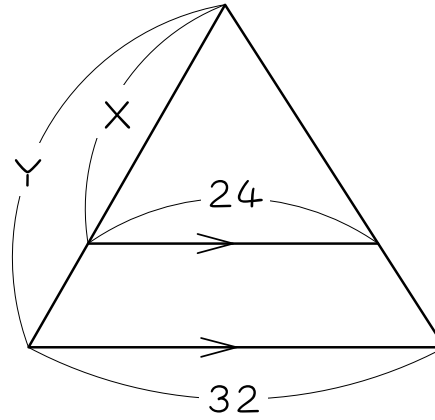
(3)



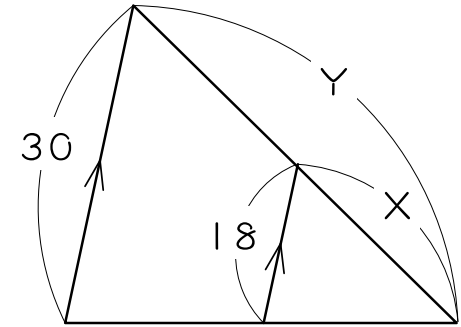
(4)



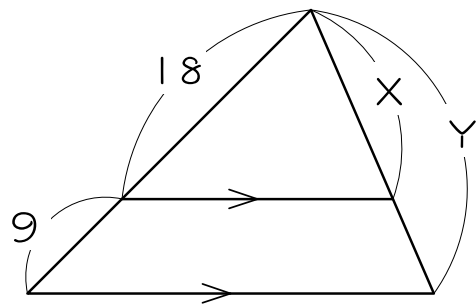
(5)



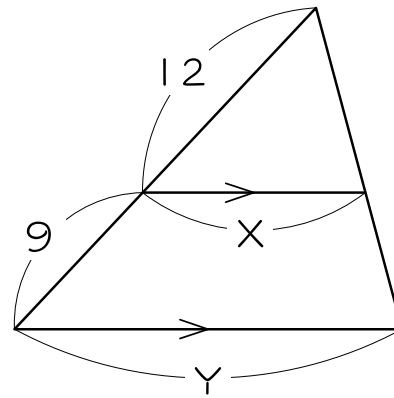
(6)



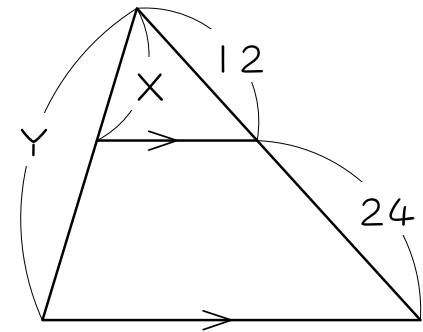
(7)



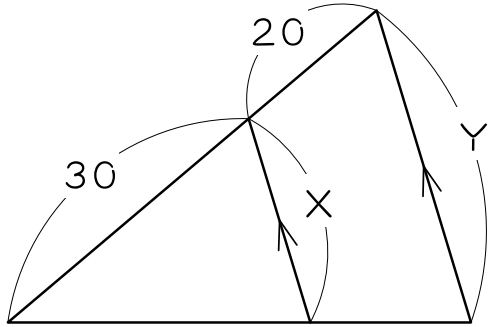
(8)



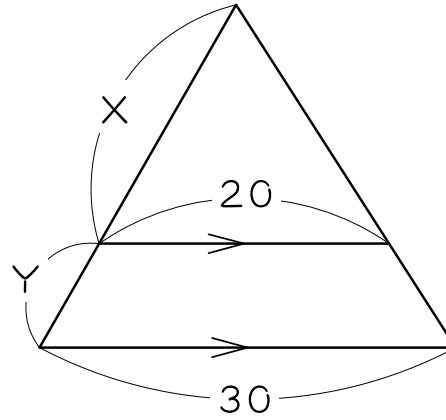
(9)



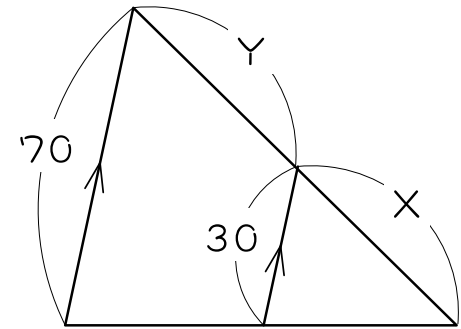
(10)



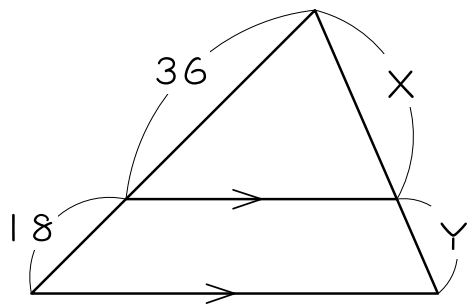
(11)



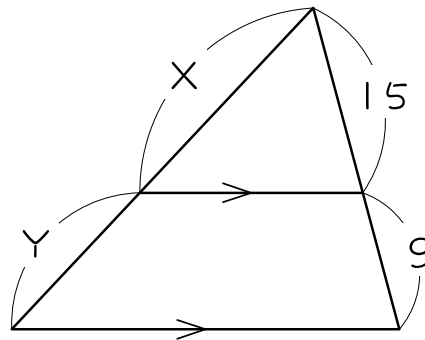
(12)



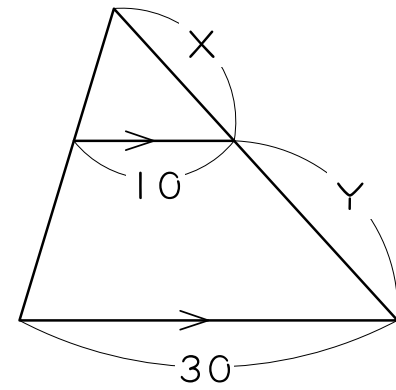
(13)



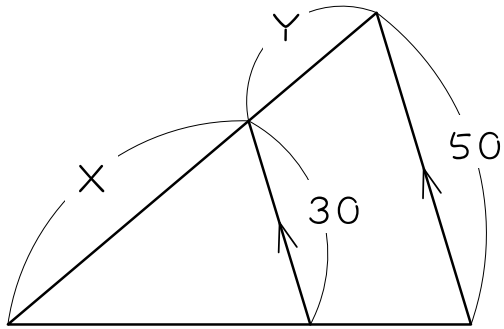
(14)



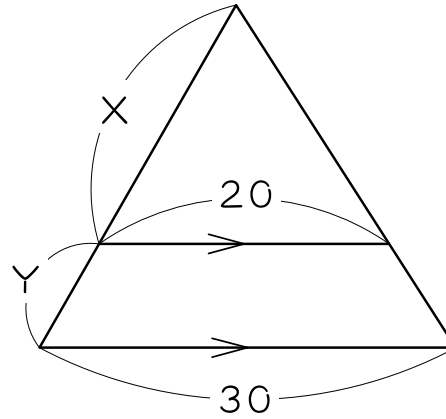
(15)



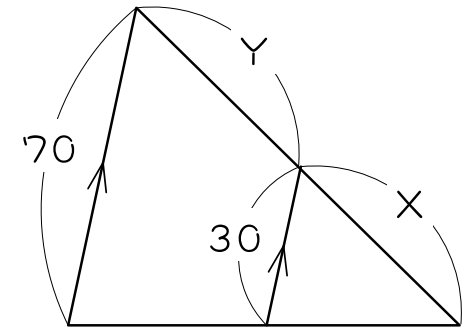
(16)



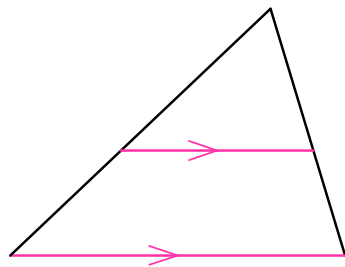
(17)



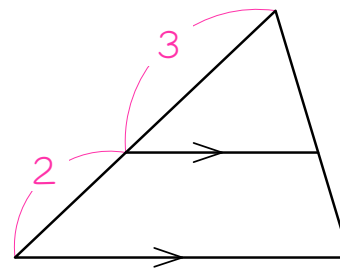
(18)



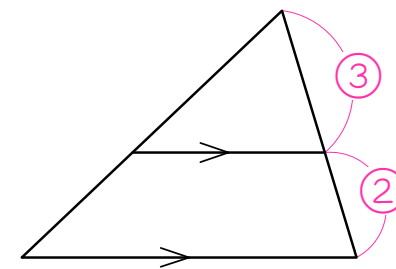
平行線の性質



横線が平行のとき



左が 3 : 2 なら



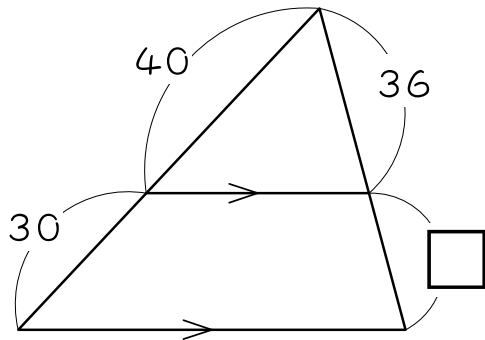
右も 3 : 2

ステップ2 ピラミッド相似 - 長さを求める

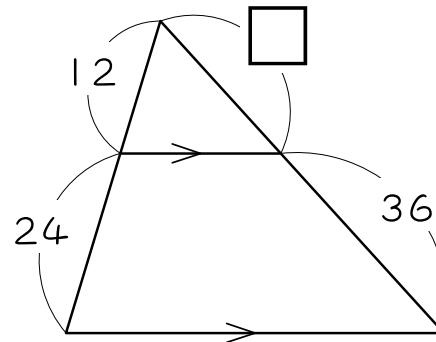
2

□にあてはまる数を求めなさい。

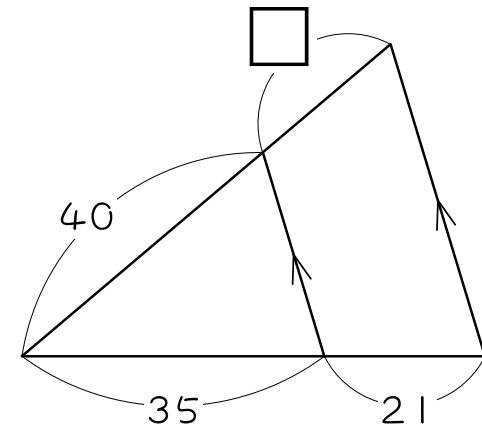
(1)



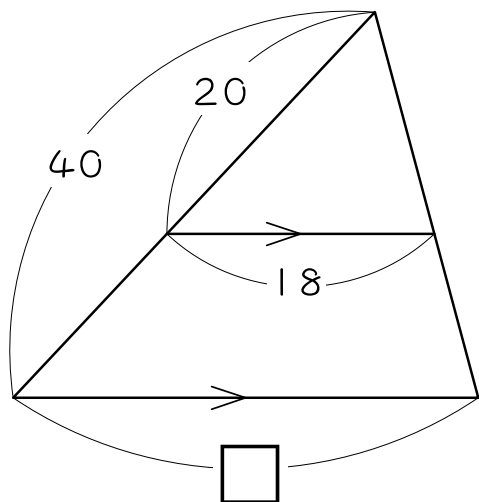
(2)



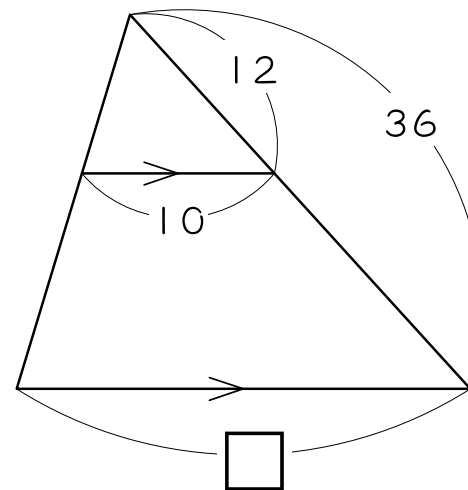
(3)



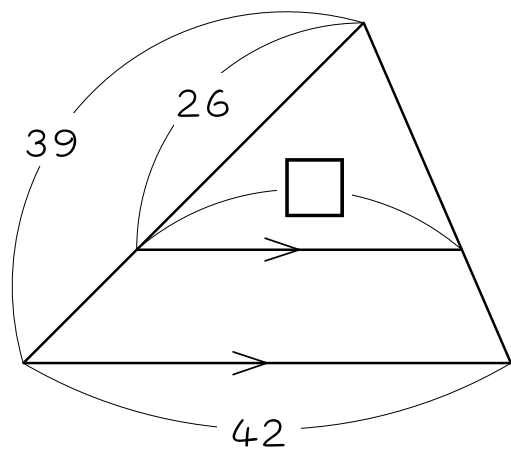
(4)



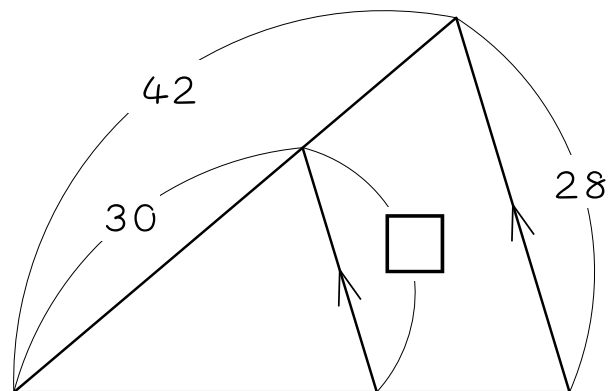
(5)



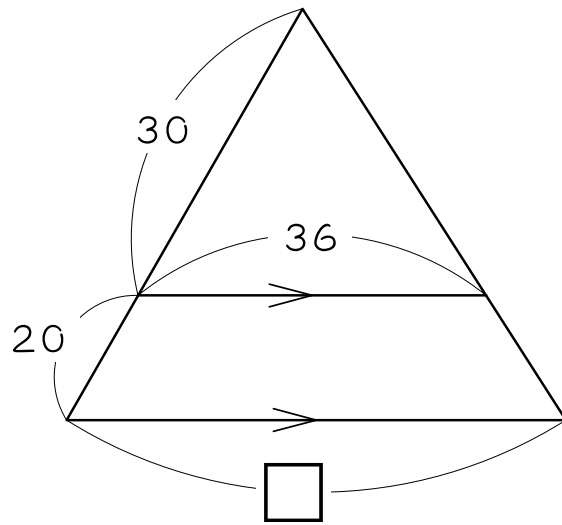
(6)



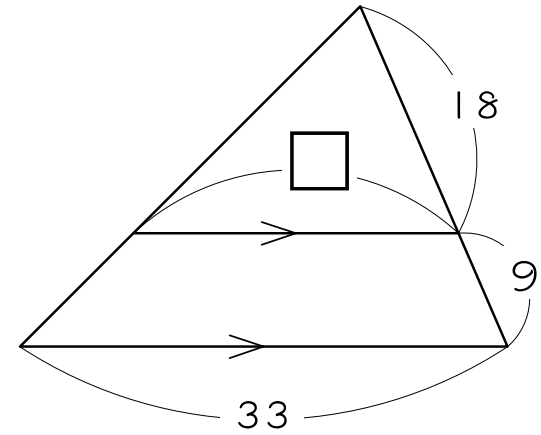
(7)



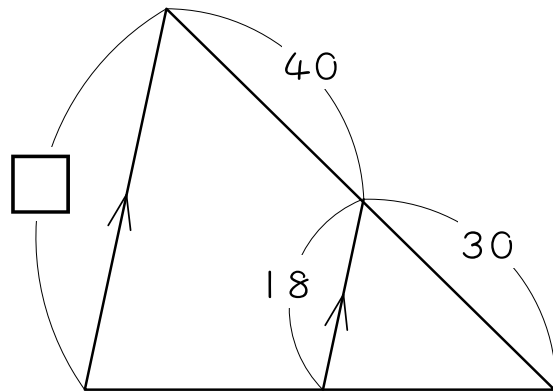
(8)



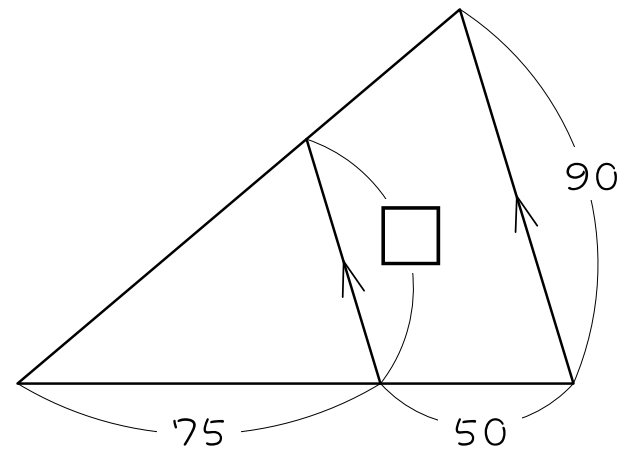
(9)



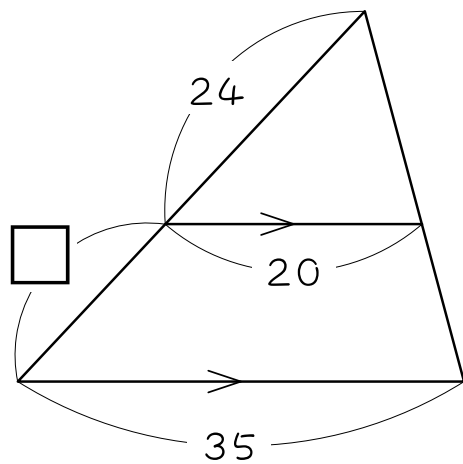
(10)



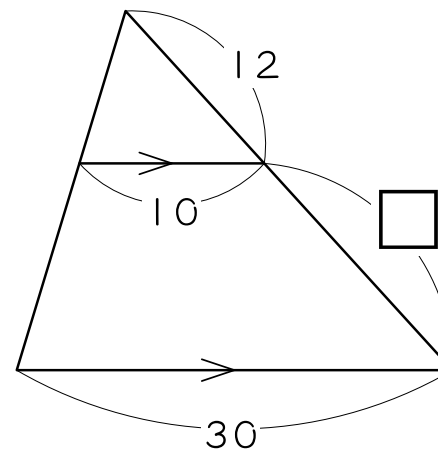
(11)



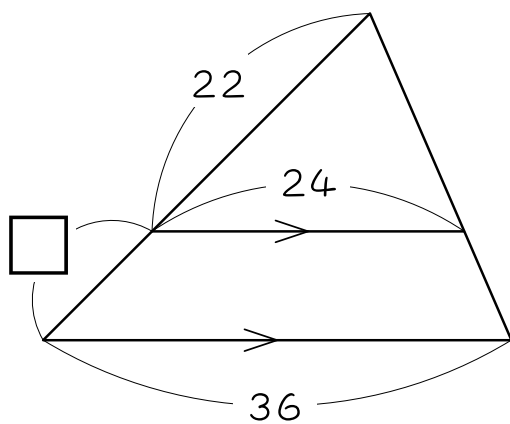
(12)



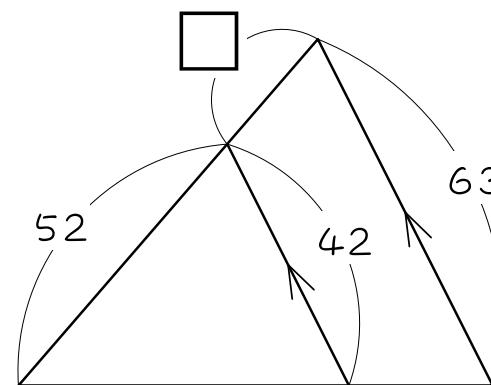
(13)



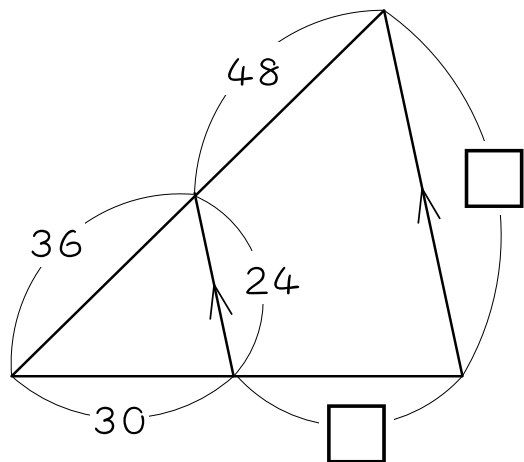
(14)



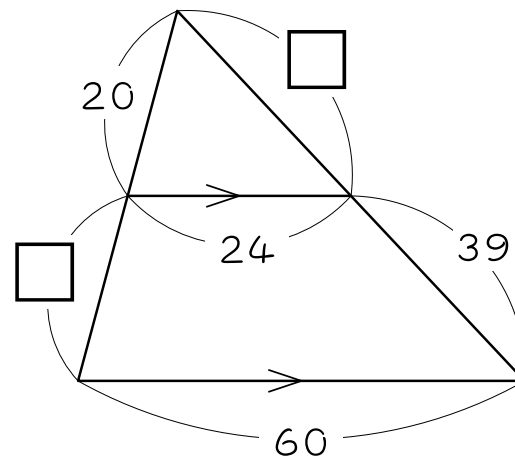
(15)



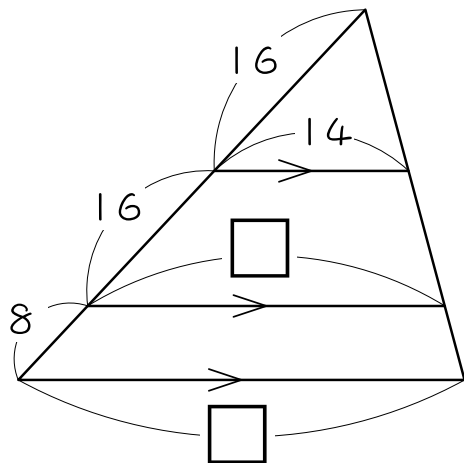
(16)



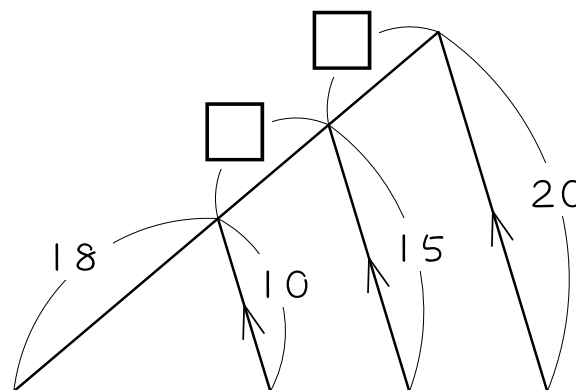
(17)



(18)



(19)

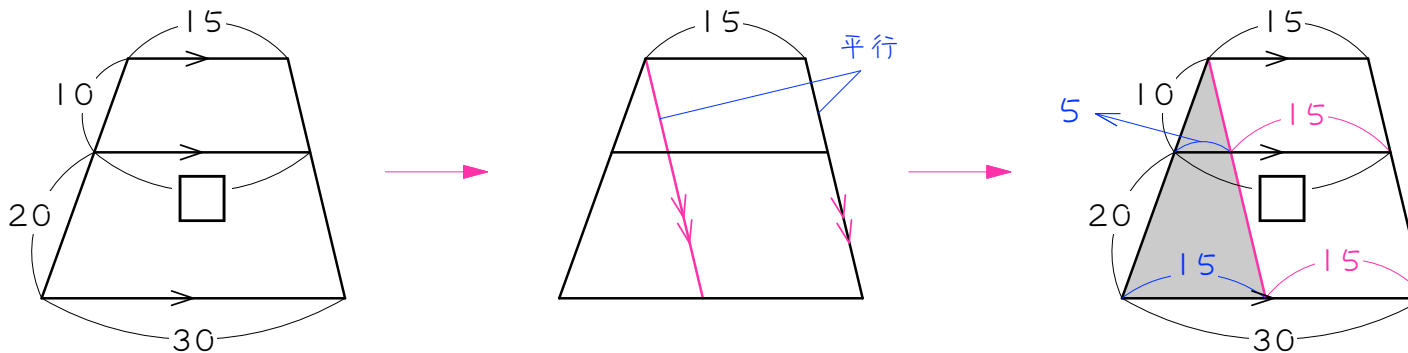


ステップ3 台形 → 補助線を引いてピラミッドをつくる

3

□にあてはまる数を求めなさい。

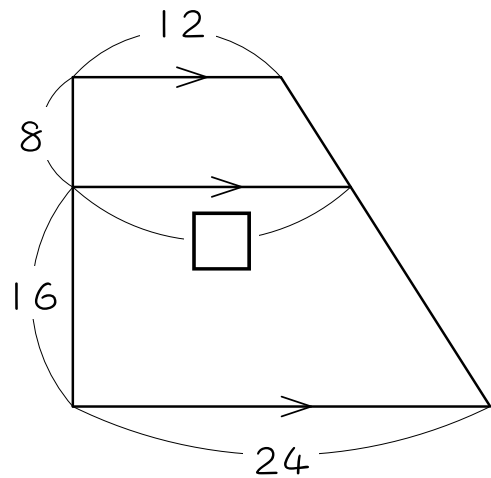
例)



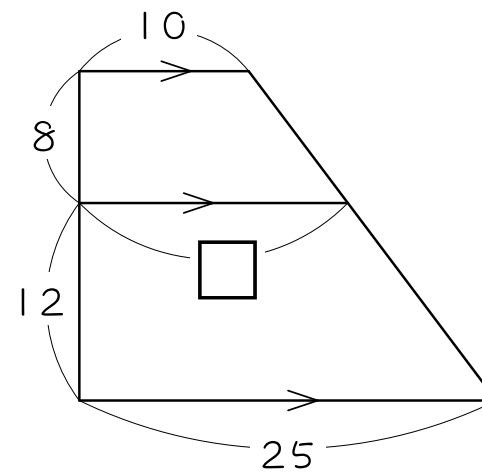
平行線を引いて、
ピラミッド相似と
平行四辺形に分ける

$$\square = 5 + 15 = \underline{20}$$

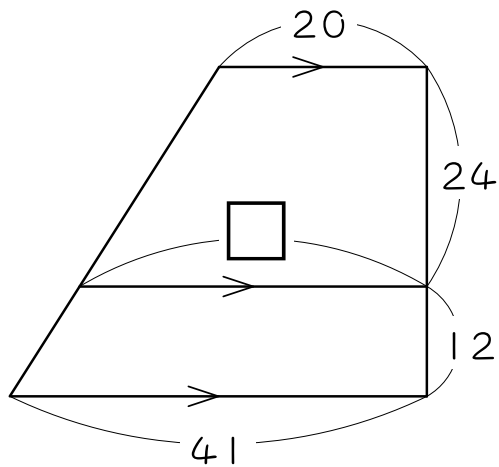
(1)



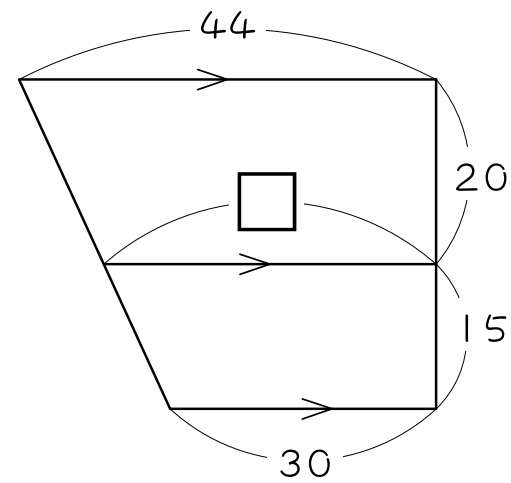
(2)



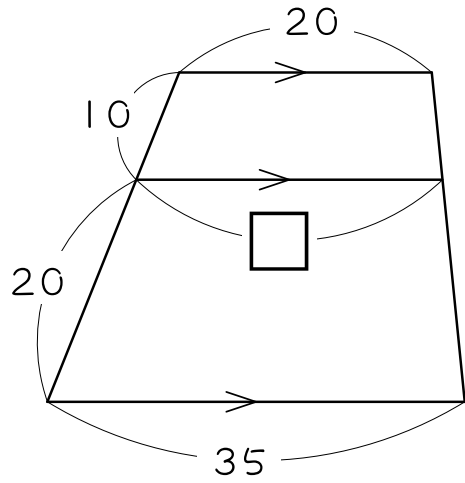
(3)



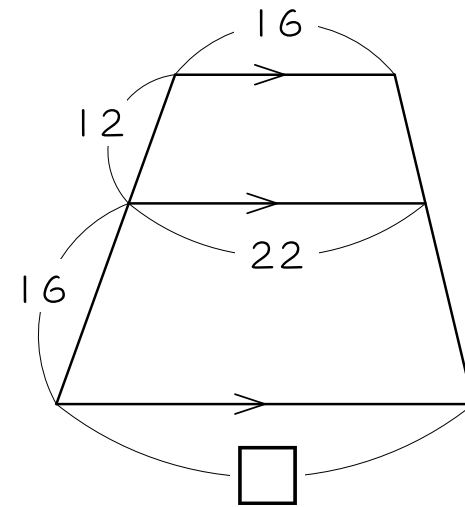
(4)



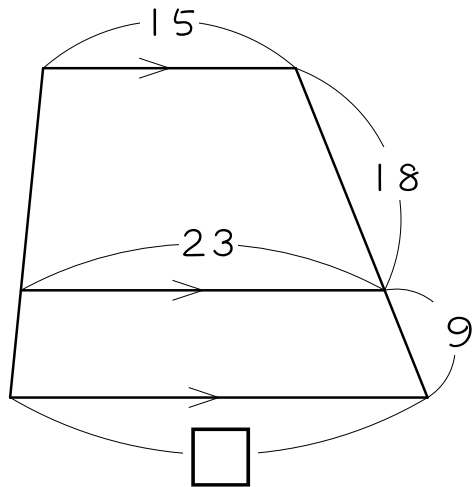
(5)



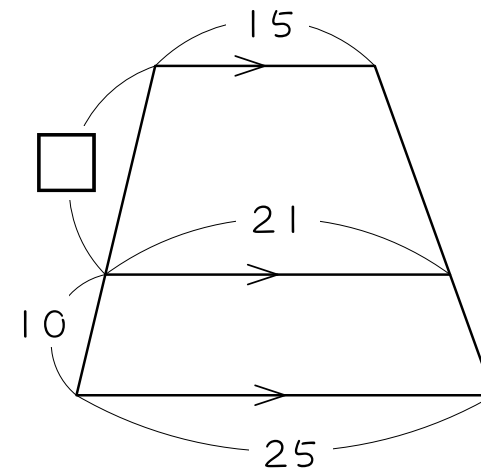
(6)



(7)



(8)



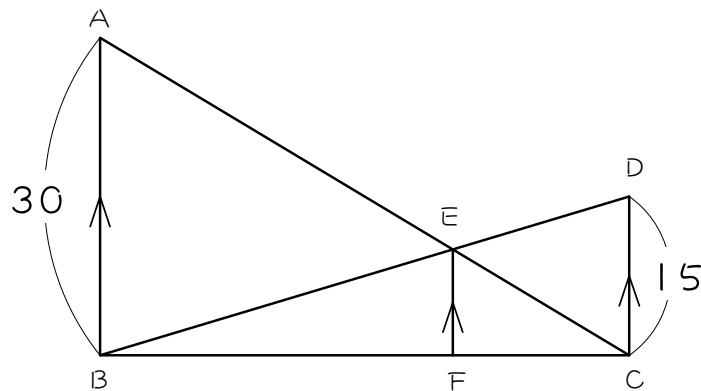
ステップ4 組み合わせ - 長さの比を求める

4

次の比を求めなさい。

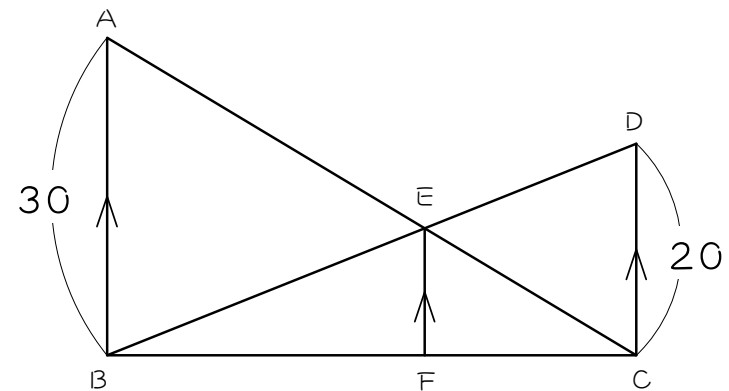
(1) ① $BF : FC$

② $EF : DC$

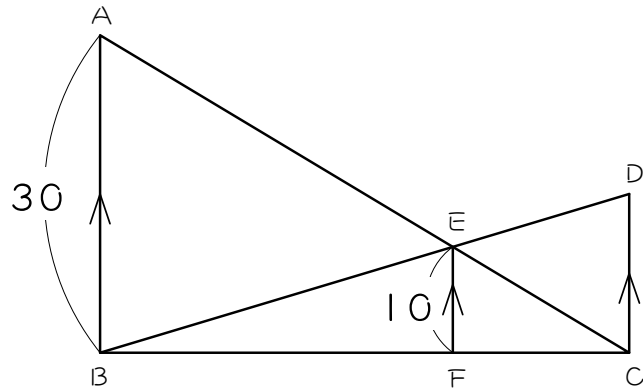


(2) ① $BF : FC$

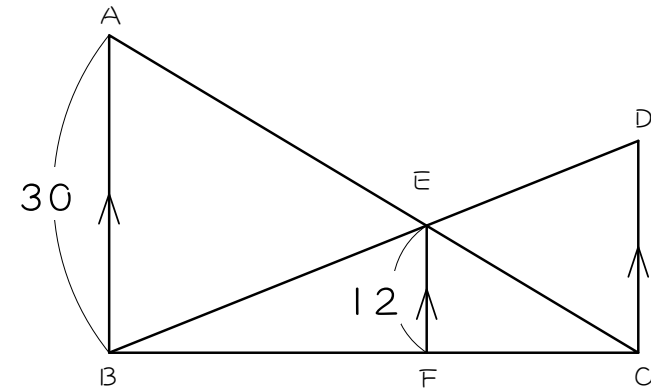
② $EF : DC$



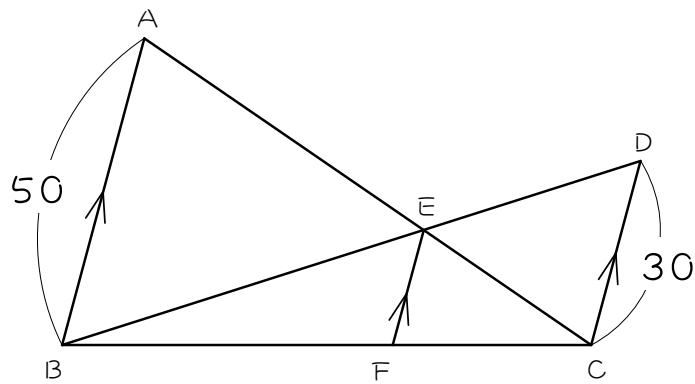
- (3) ① $BF : FC$
 ② $EF : DC$



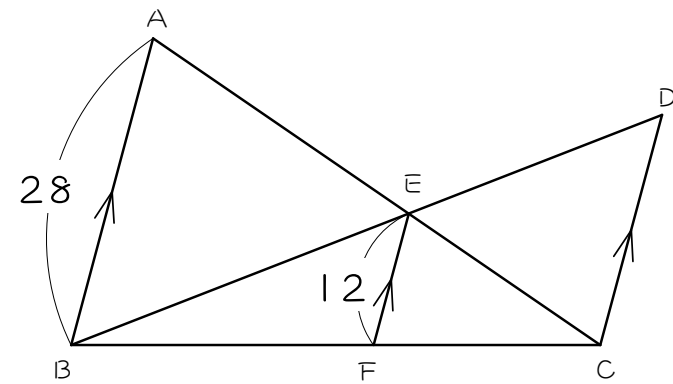
- (4) ① $BF : FC$
 ② $EF : DC$



- (5) ① $BF : FC$
 ② $EF : DC$



- (6) ① $BF : FC$
 ② $EF : DC$

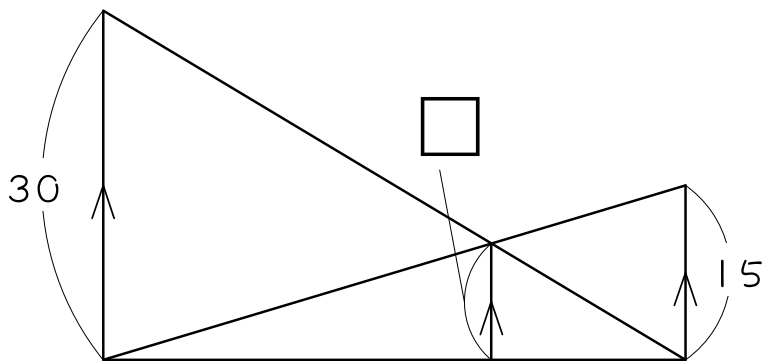


ステップ5 応用 - 組み合わせ

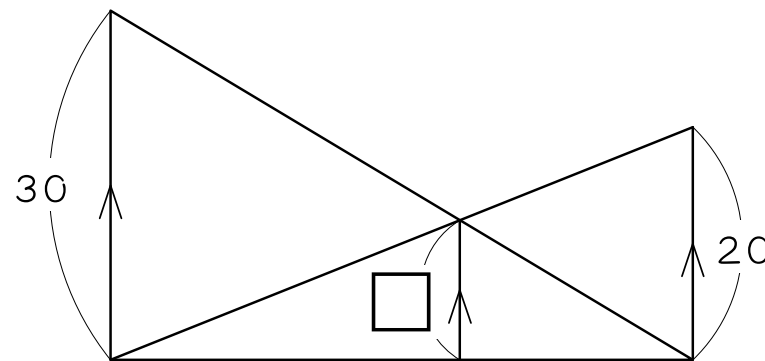
5

□にあてはまる数を求めなさい。

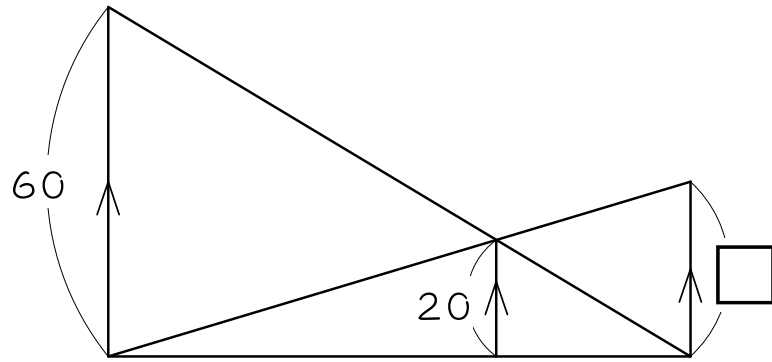
(1)



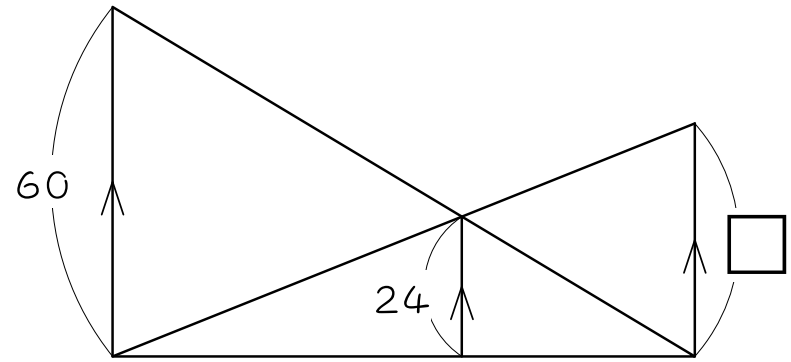
(2)



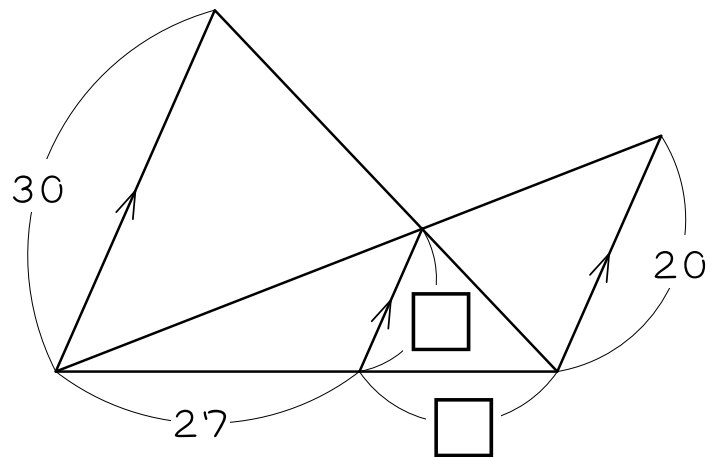
(3)



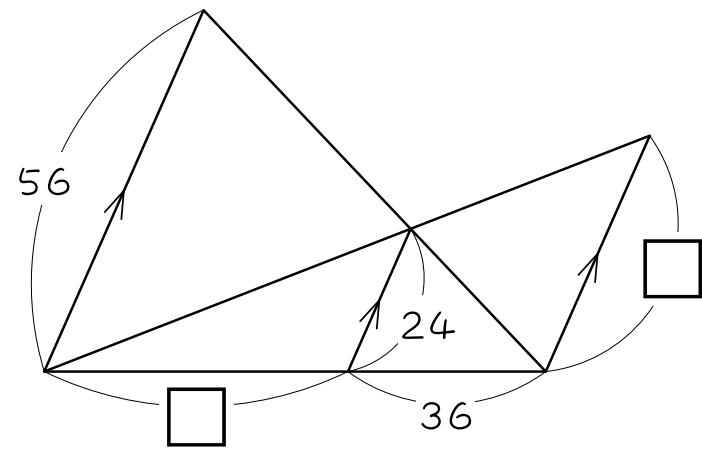
(4)



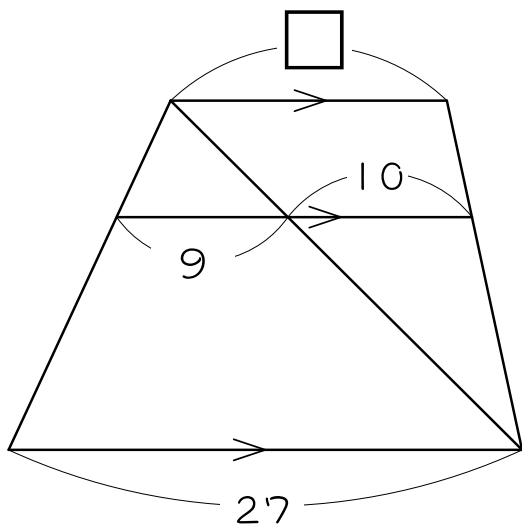
(5)



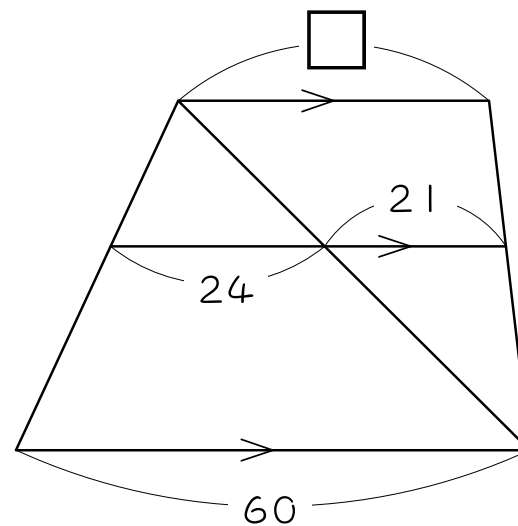
(6)



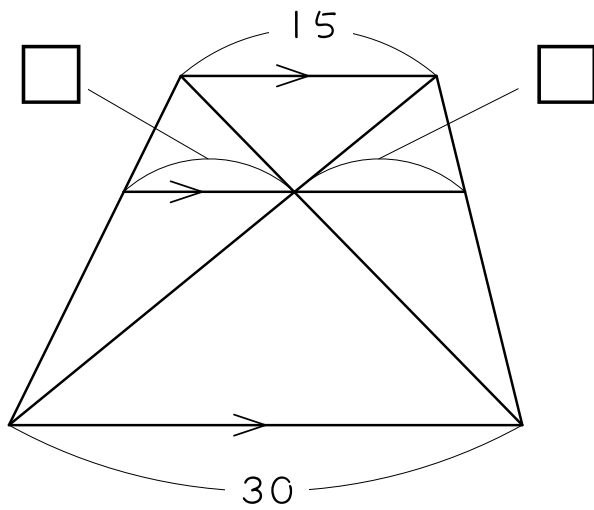
(7)



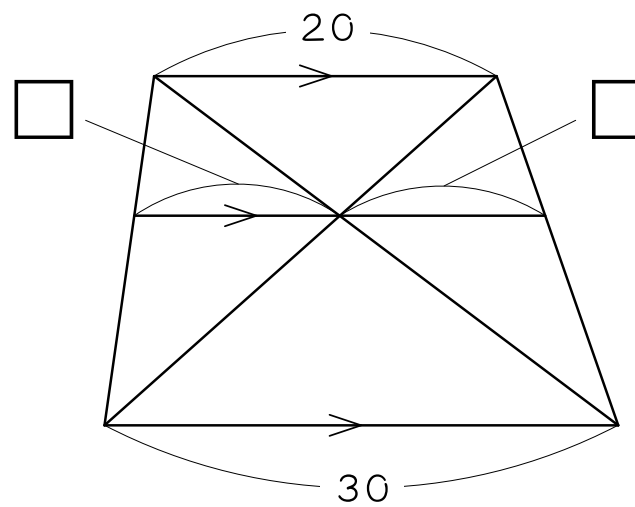
(8)



(9)[☆]

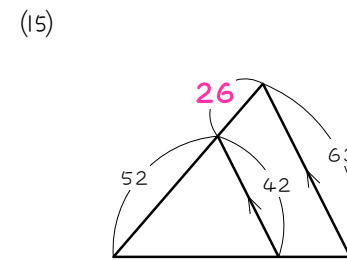
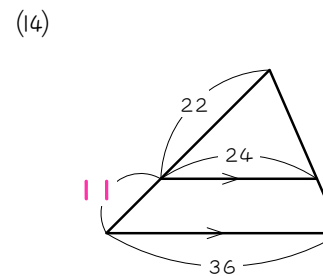
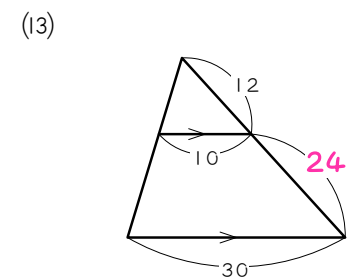
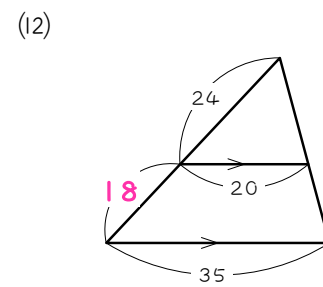
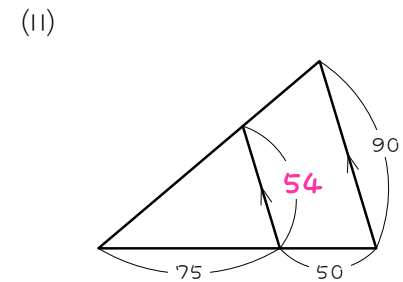
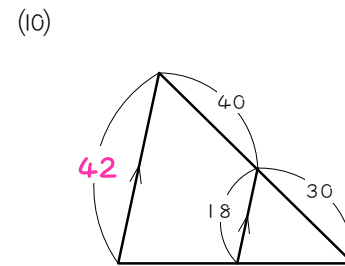
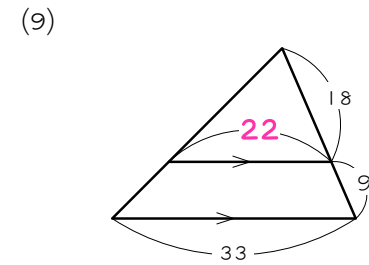
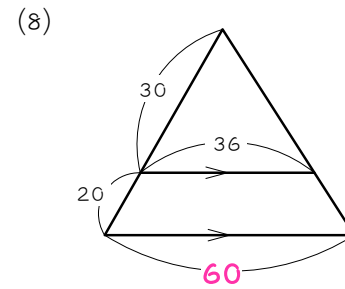
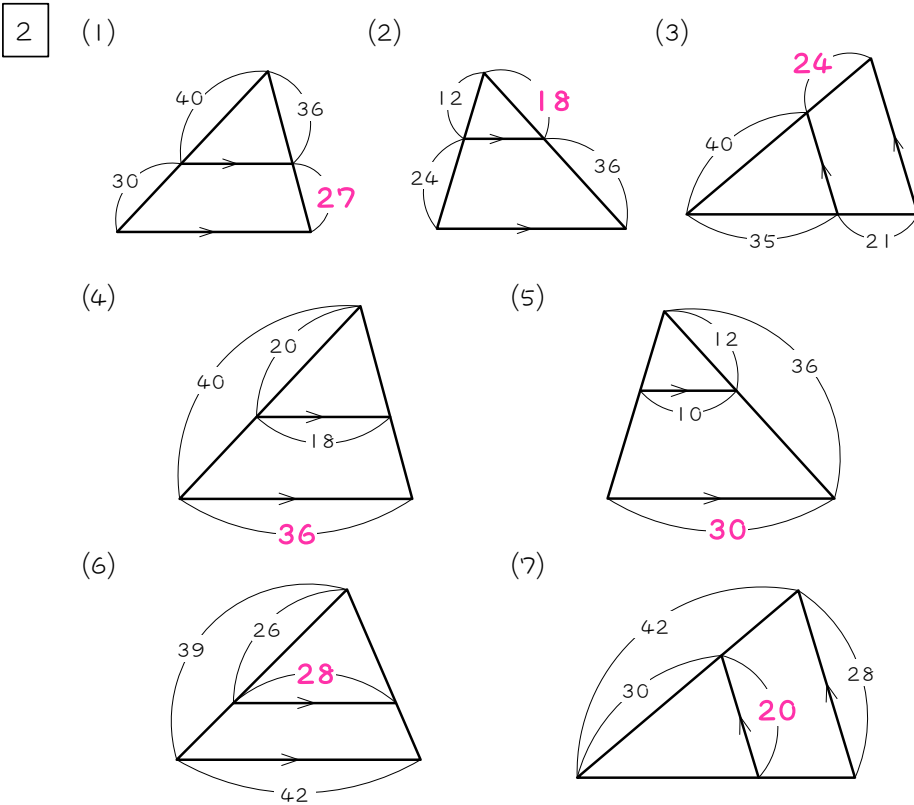


(10)[☆]

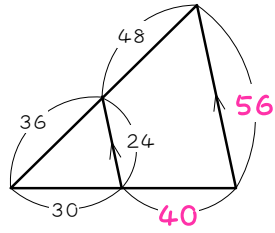


解答

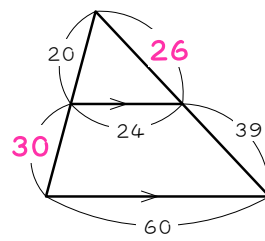
- 1 (1) 4 : 7 (2) 2 : 5 (3) 3 : 4
 (4) 5 : 7 (5) 3 : 4 (6) 3 : 5
 (7) 2 : 3 (8) 4 : 7 (9) 1 : 3
 (10) 3 : 5 (11) 2 : 1 (12) 3 : 4
 (13) 2 : 1 (14) 5 : 3 (15) 1 : 2
 (16) 3 : 2 (17) 2 : 1 (18) 3 : 4



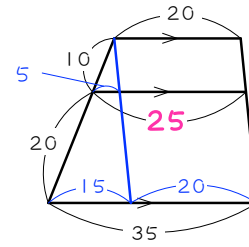
(16)



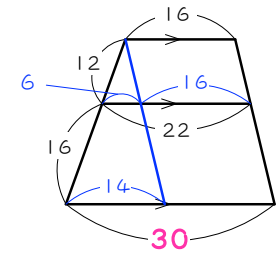
(17)



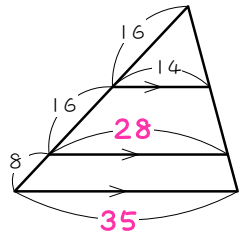
(5)



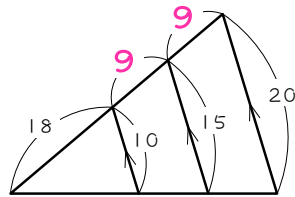
(6)



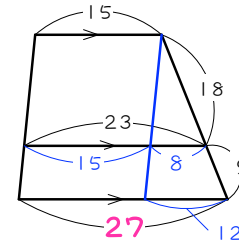
(18)



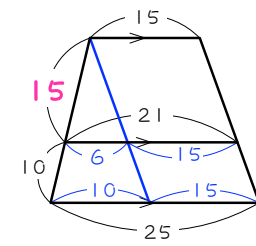
(19)



(7)

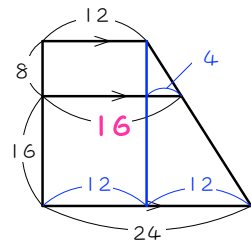


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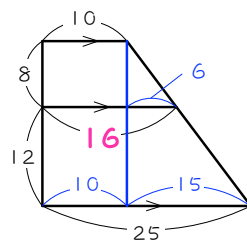


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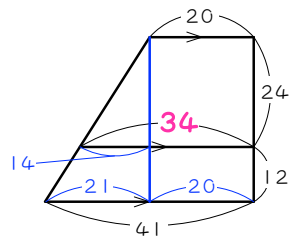
(1)



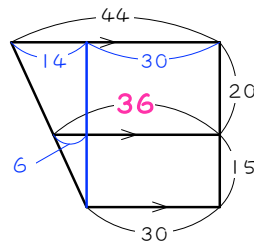
(2)



(3)



(4)

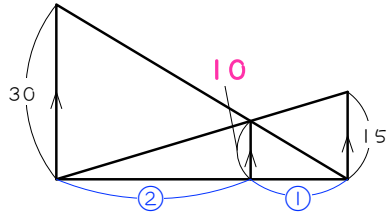


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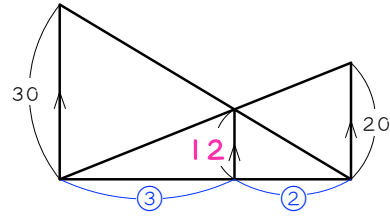
- (1) ① 2 : 1 ② 2 : 3
- (2) ① 3 : 2 ② 3 : 5
- (3) ① 2 : 1 ② 2 : 3
- (4) ① 3 : 2 ② 3 : 5
- (5) ① 5 : 3 ② 5 : 8
- (6) ① 4 : 3 ② 4 : 7

5

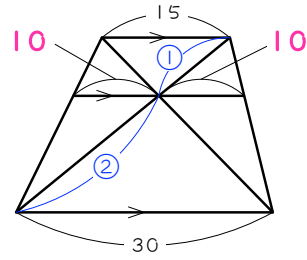
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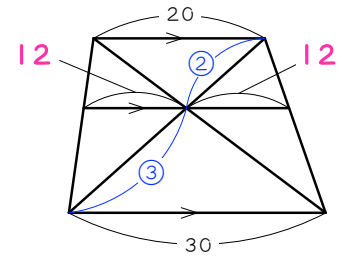
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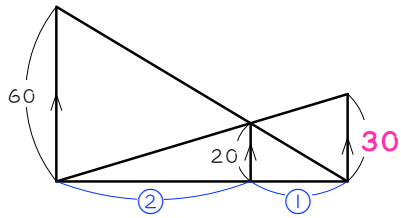
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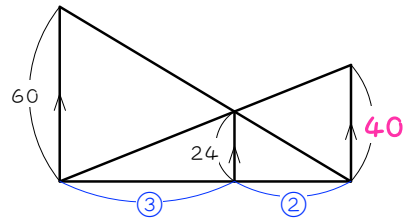
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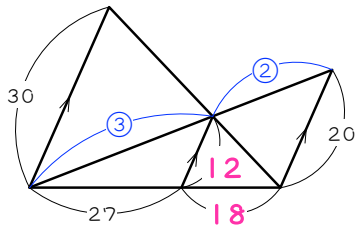
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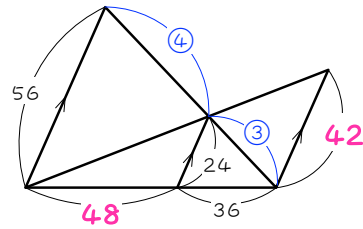
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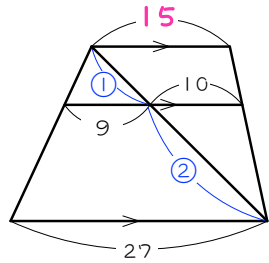
(5)



(6)



(7)



(8)

