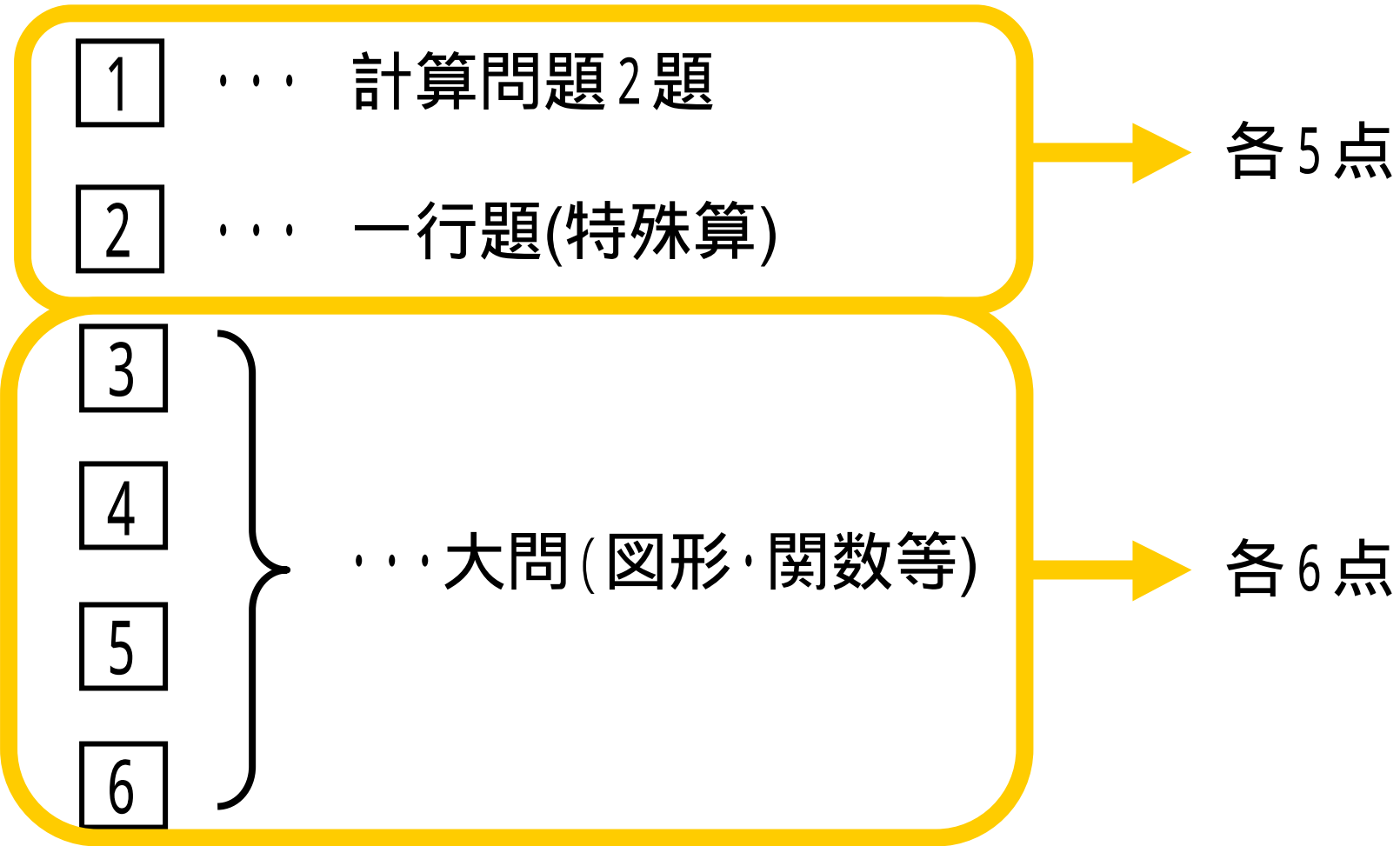


算数

第1回

問題解説

問題の構成



記述式問題... 3 問

2

1行問題

- (1) 過不足算
- (2) 食塩水
- (3) 組合せ
- (4) 割合
- (5) 約束記号
- (6) 数列



各項目の基本事項が
定着しているかを確認

$$\boxed{2} (5) \quad \frac{\langle a \rangle}{4} \times 7 - \frac{a}{6} = \frac{11}{12}$$

$$\frac{3 \times \langle a \rangle \times 7}{12} - \frac{2 \times a}{12} = \frac{11}{12}$$

$$3 \times \langle a \rangle \times 7 - 2 \times a = 11$$

$$\underline{21 \times \langle a \rangle} - \underline{2 \times a} = \underline{11}$$

(奇) - (偶数) (奇数)

$$\underline{21 \times \langle a \rangle} \cdots \text{奇}$$

奇

$$\langle a \rangle = 0, 1, 2, 3$$

$$21 \times \langle a \rangle - 2 \times a = 11$$

$\langle a \rangle = 1$ のとき

$$21 \times 1 - 2 \times a = 11$$

$$21 - 2 \times a = 11$$

10

$$a = 5$$

$$5 \div 4 = 1 \dots 1$$

$\langle a \rangle = 3$ のとき

$$21 \times 3 - 2 \times a = 11$$

$$63 - 2 \times a = 11$$

52

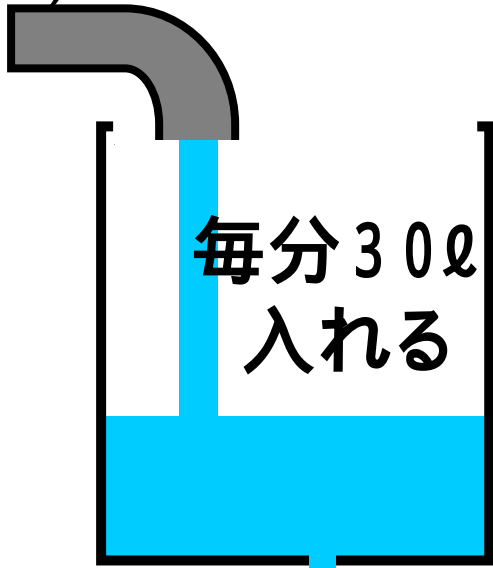
$$a = 26$$

$$26 \div 4 = 6 \dots 2$$

$$a = 5$$

3

(1)



毎分 30ℓ
入れる

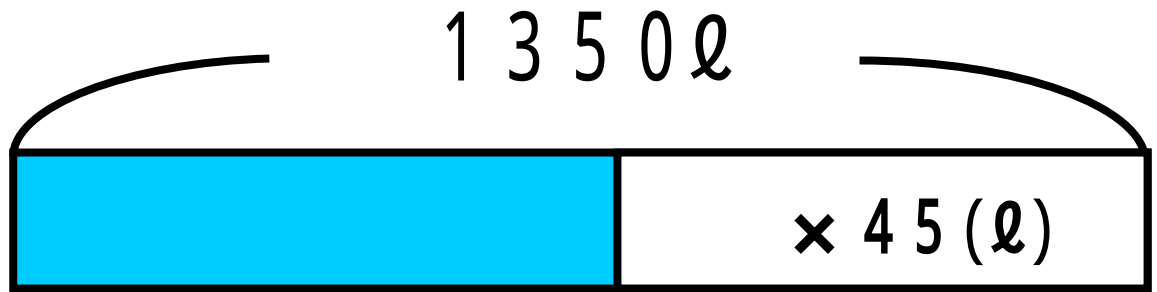
毎分 ℓ
出る

× 45 (ℓ)
出る

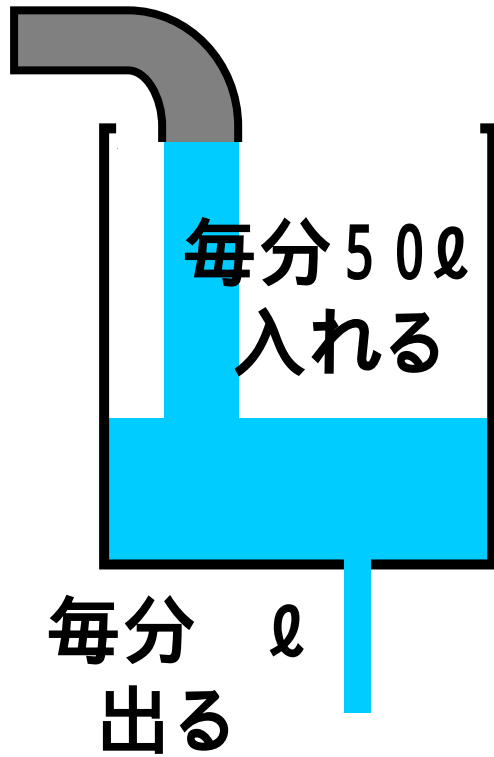
45分間

$$30 \times 45 = 1350 (\ell)$$

入る



20分間

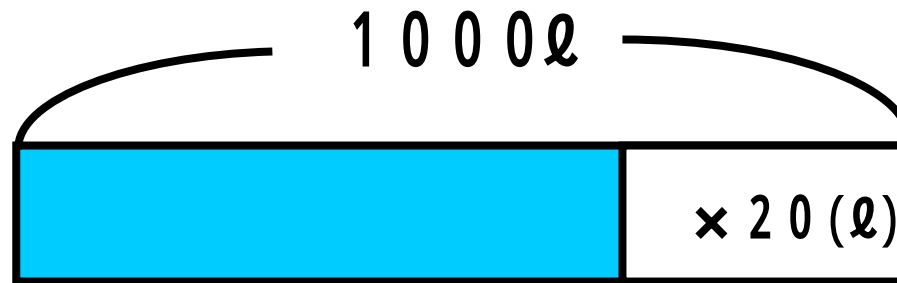


$$50 \times 20 = 1000 (\text{ℓ})$$

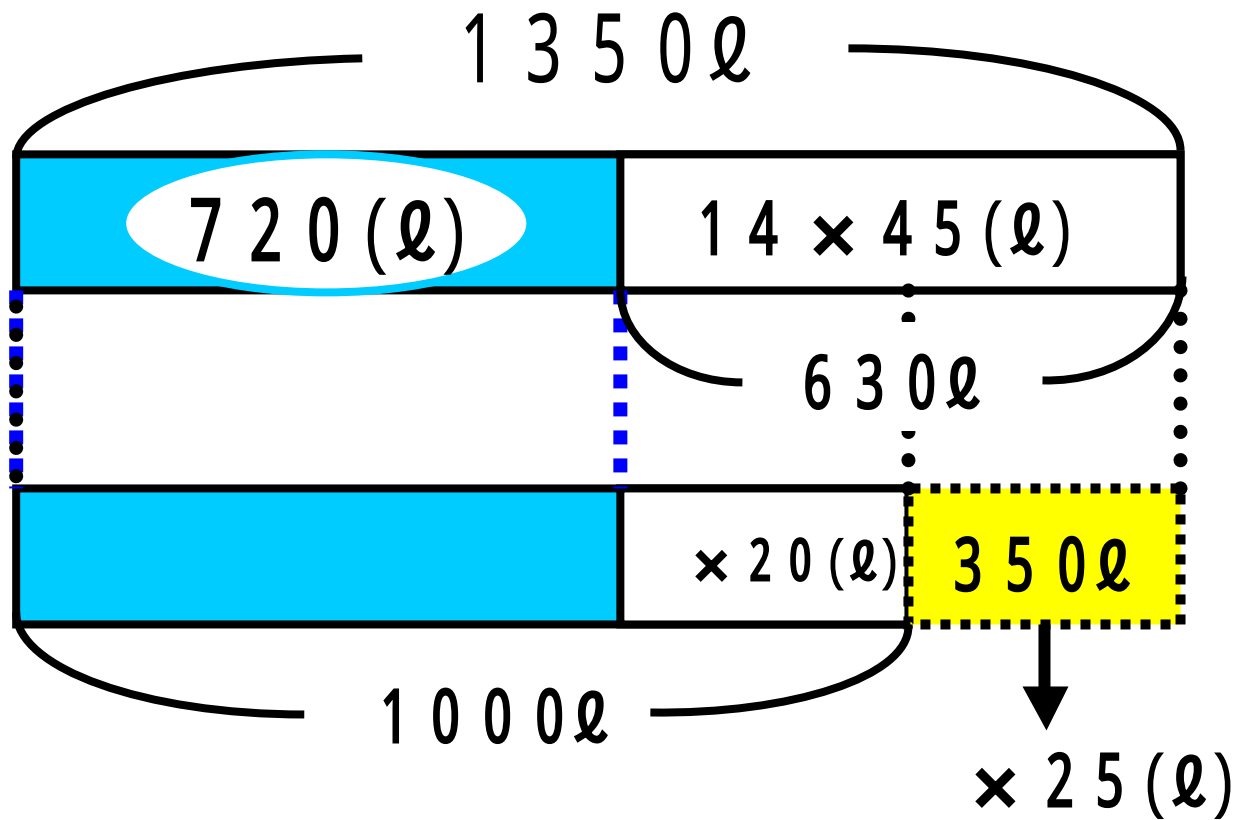
入る

$$\times 20 (\text{ℓ})$$

出る

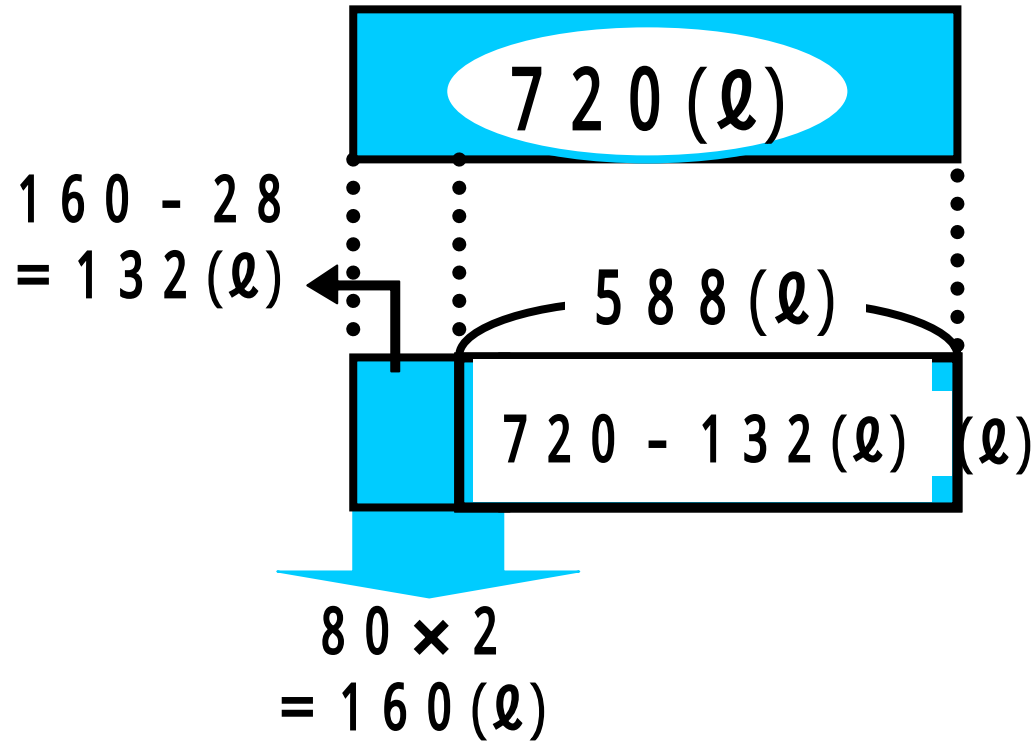


3(2)



$$\begin{aligned}
 \times 25 &= 350_3 \\
 720 \div 14 &= 51 \frac{3}{7} \text{ (分)} \\
 &= 14 \frac{7}{7}
 \end{aligned}$$

3 (3)

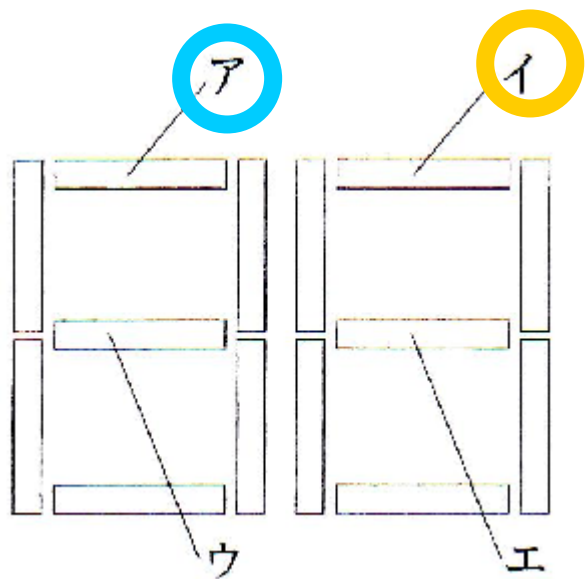
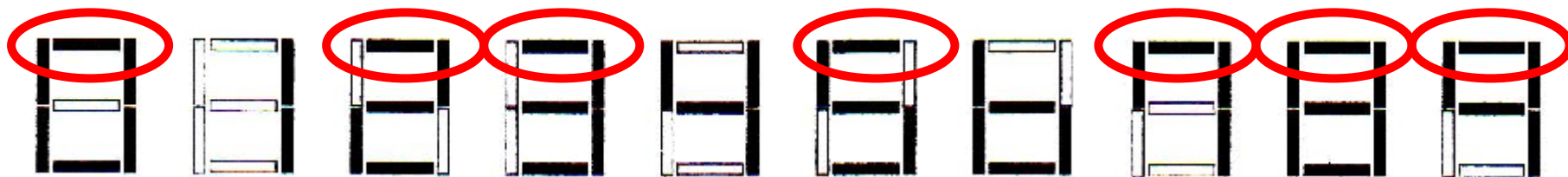


$$\begin{aligned} (\quad - 14) \times 12 &= 588 \\ &= 63 \end{aligned}$$

4

(1)

7回



00 ~ 99まで...

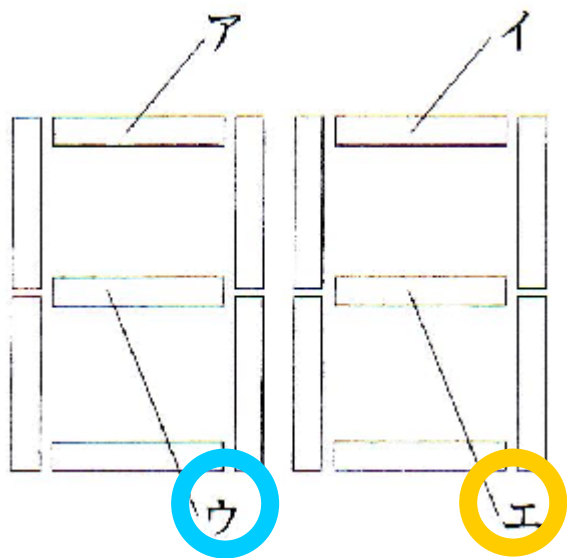
$$7 \times 10 + 7 \times 10 = 140 \text{ (回)}$$

4 (2)

7回



00 ~ 99まで...

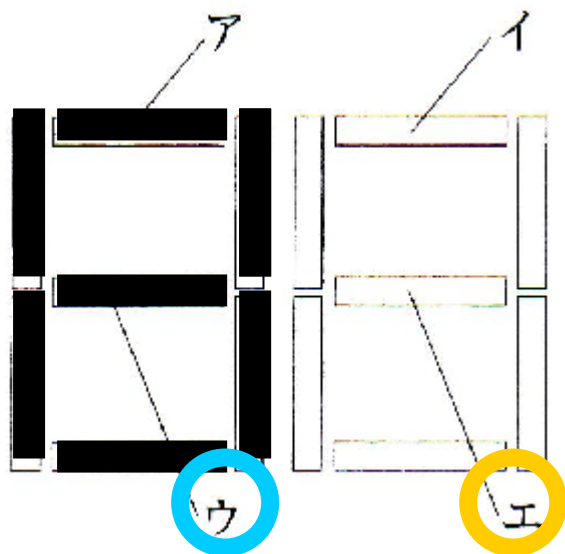


$$7 \times 10 + 7 \times 10$$

$$= 140 (\text{回})$$

$$200 - 140 = 60 (\text{回})$$

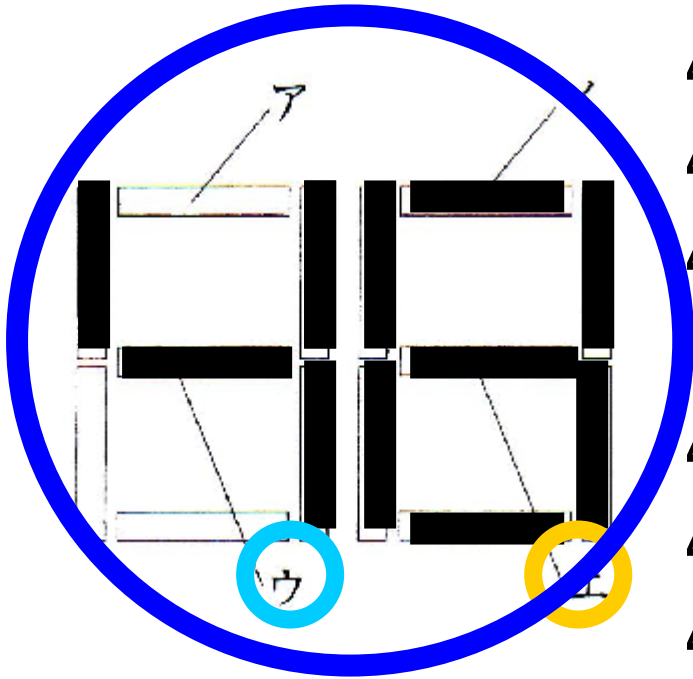
7回



- 十の位が0のとき ... 0 + 7 (回)
- 十の位が1のとき ... 0 + 7 (回)
- 十の位が2のとき ... 10 + 7 (回)
- 十の位が3のとき ... 10 + 7 (回)

$$\begin{aligned} \text{合計 } & 140 + 20 + 28 \\ & = 188 \text{ (回)} \end{aligned}$$

10の位が4のとき

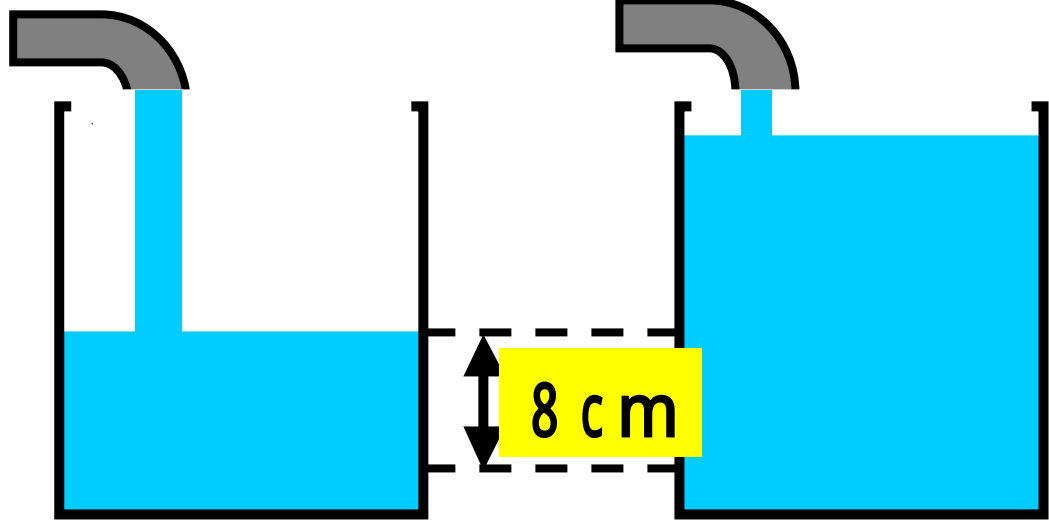


				合計
40のとき	...	1	+ 0	→ 189(回)
41のとき	...	1	+ 0	→ 190(回)
42のとき	...	1	+ 1	→ 192(回)
43のとき	...	1	+ 1	→ 194(回)
44のとき	...	1	+ 1	→ 196(回)
45のとき	...	1	+ 1	→ 198(回)
46のとき	...	1	+ 1	→ 200(回)

5 (1)

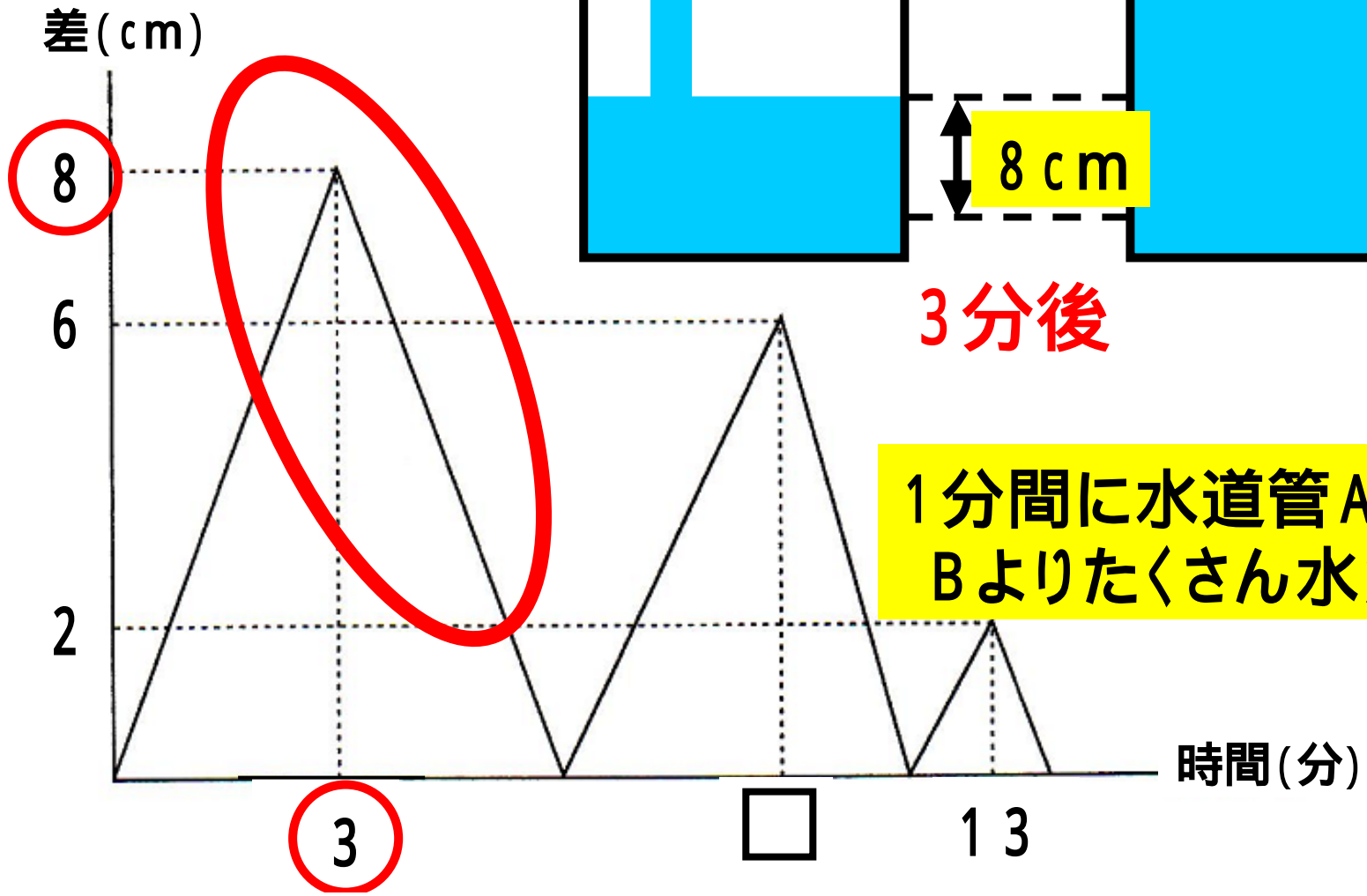
水道管A

水道管B



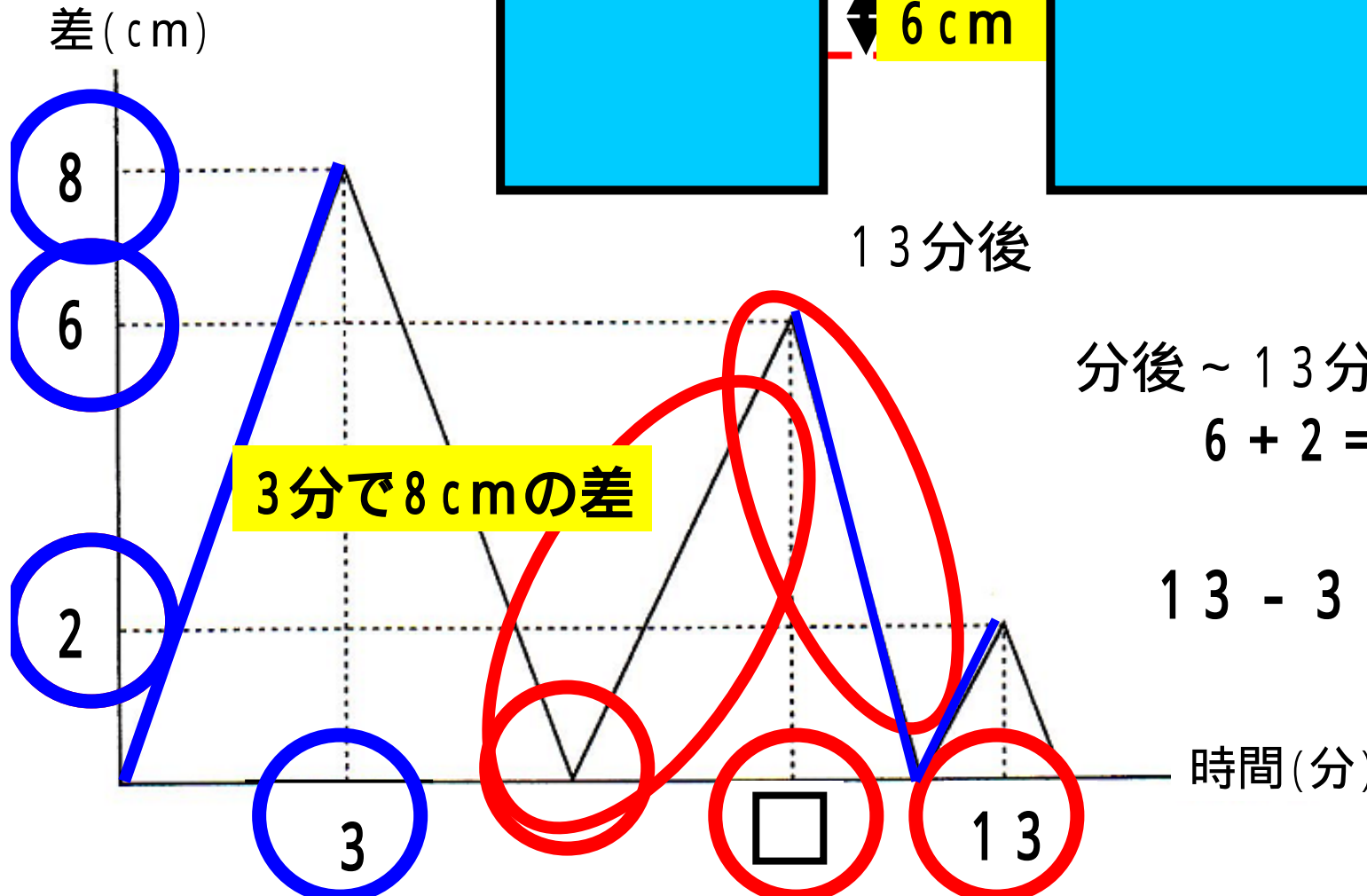
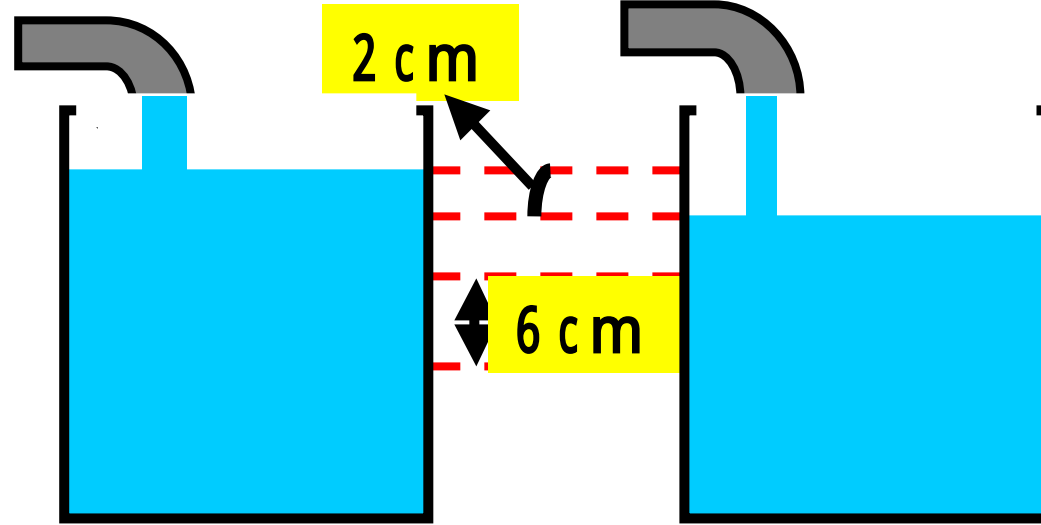
3分後

1分間に水道管Aの方が、
Bよりたくさん水が出る。



水道管A

水道管B



分後 ~ 13分後

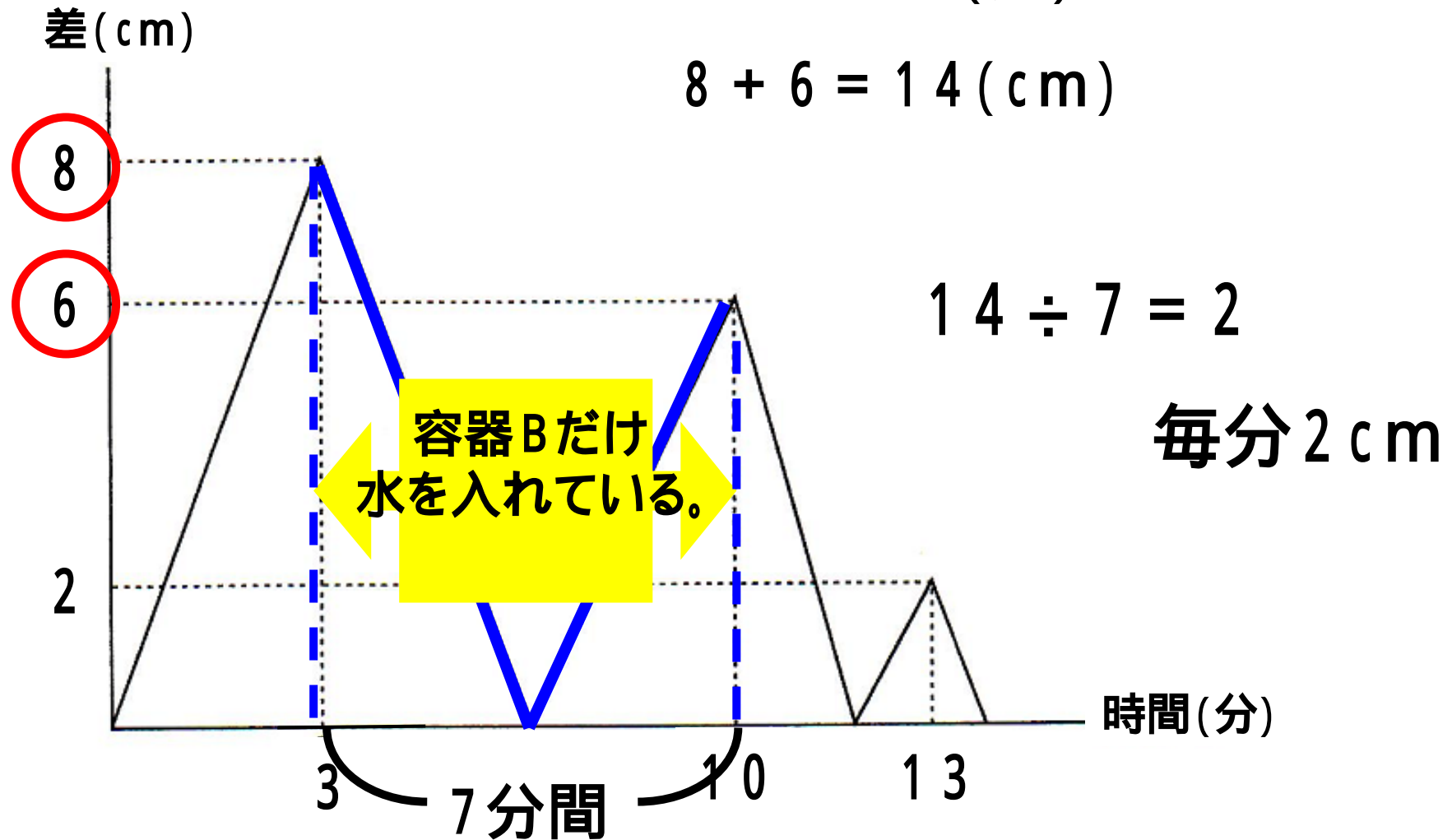
$$6 + 2 = 8 \text{ (cm)}$$

$$13 - 3 = 10 \text{ (分)}$$

5 (2)

$$10 - 3 = 7 \text{ (分)}$$

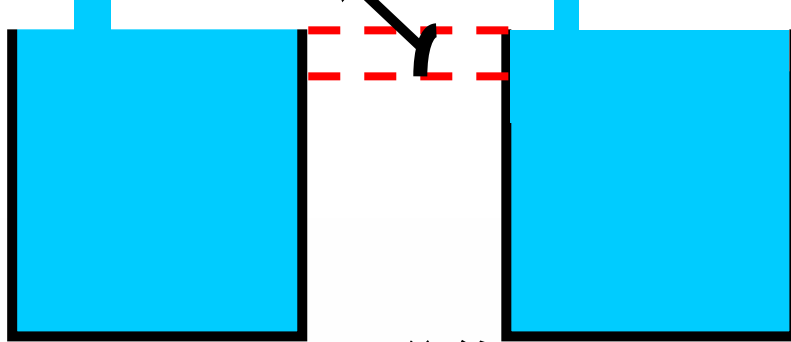
$$8 + 6 = 14 \text{ (cm)}$$



5 (3)

水道管 A 2 cm 水道管 B

水道管 B ... 毎分 2 cm

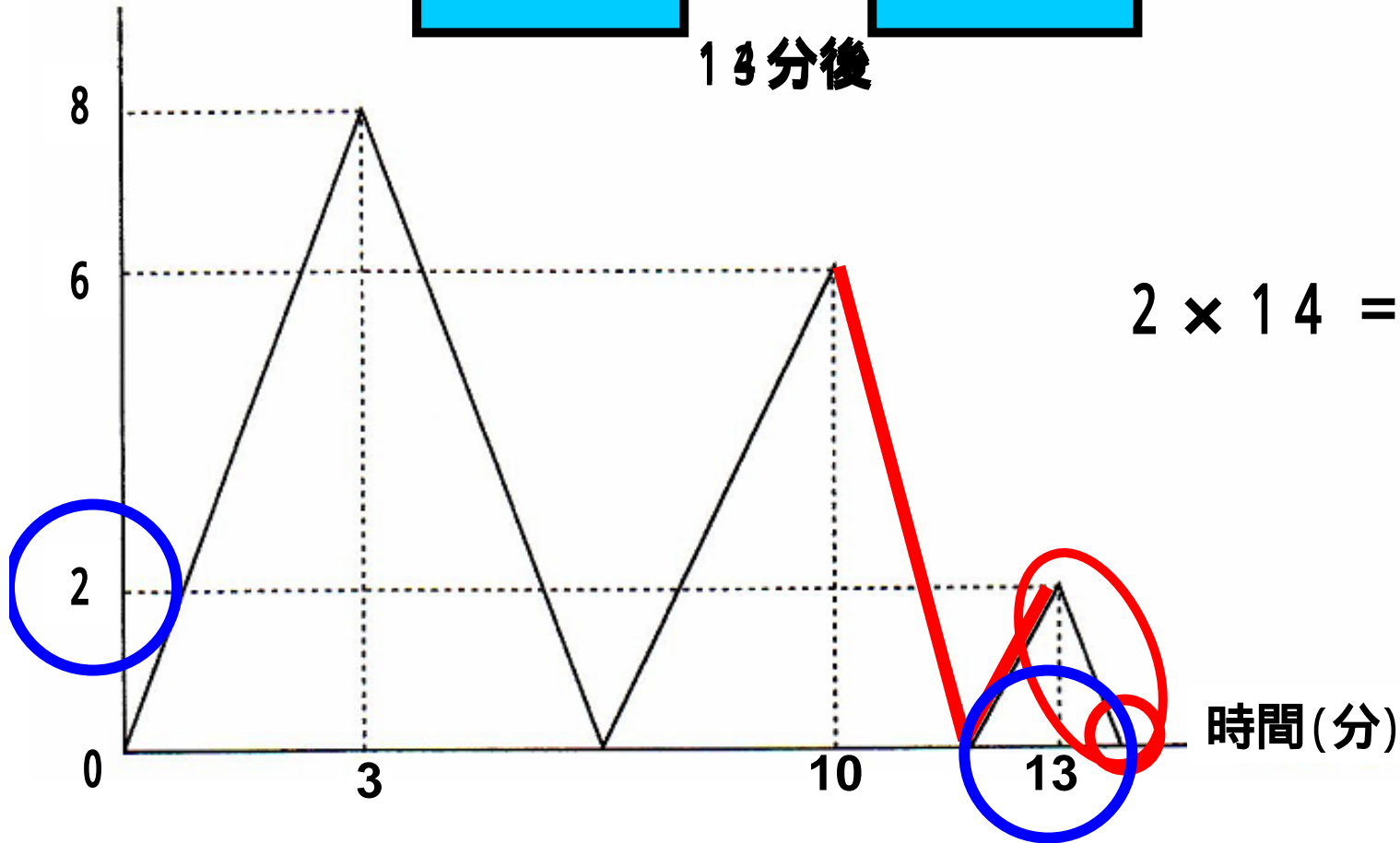


$$2 \div 2 = 1 (\text{分})$$

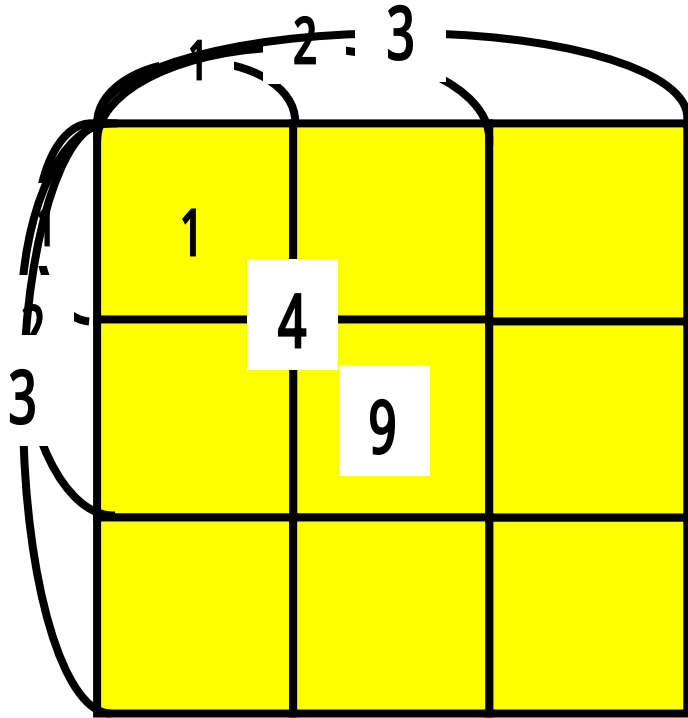
差 (cm)

13 分後

$$2 \times 14 = 28 (\text{cm})$$



6 (1)



1 辺の長さ

正方形の面積

1 → $1 \times 1 = 1$

2 → $2 \times 2 = 4$

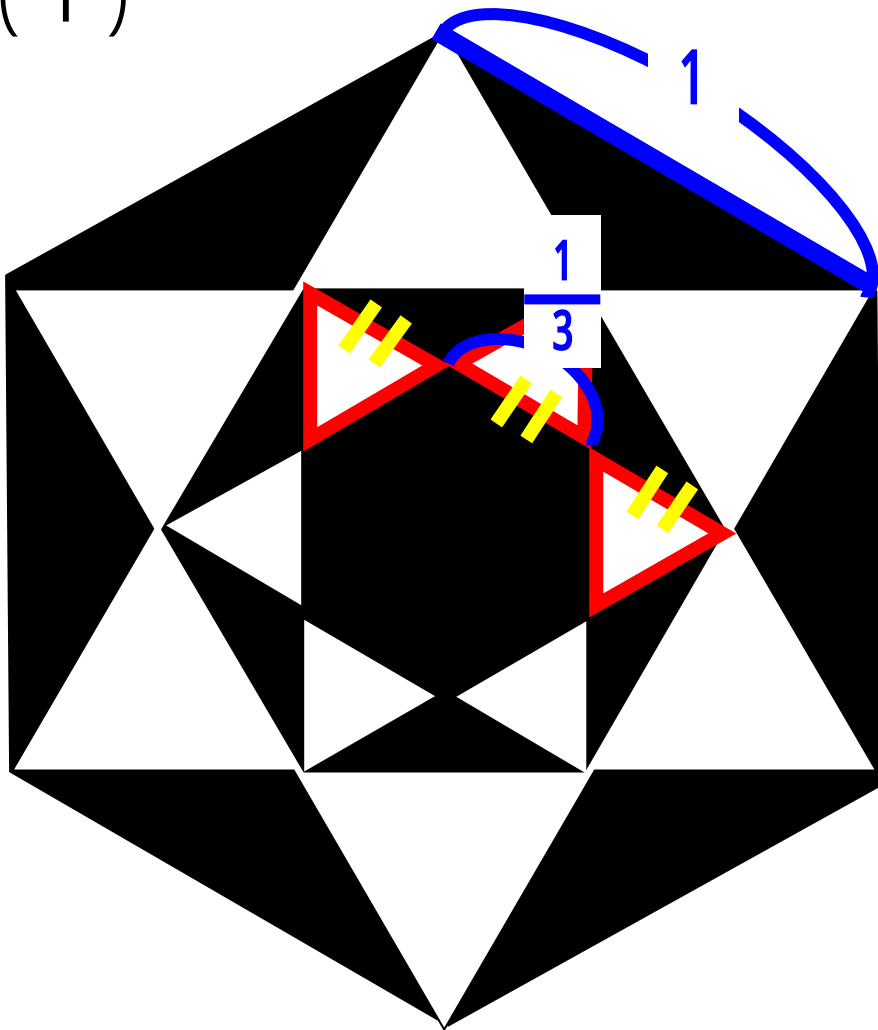
3 → $3 \times 3 = 9$

⋮

⋮

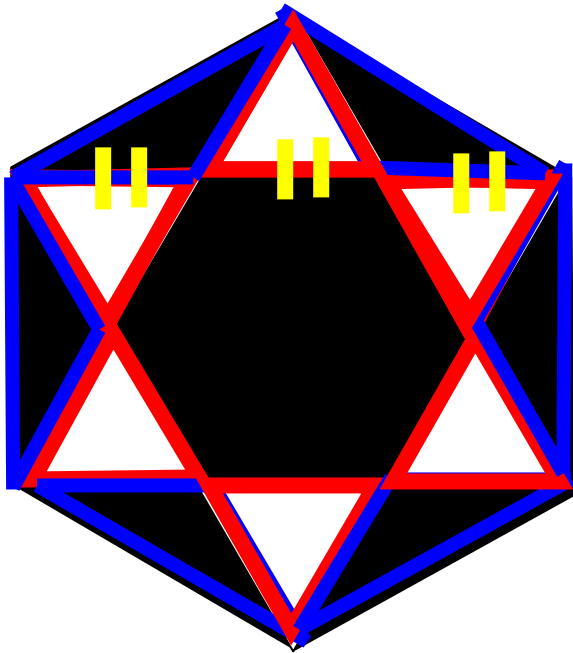
→ ×

6 (1)

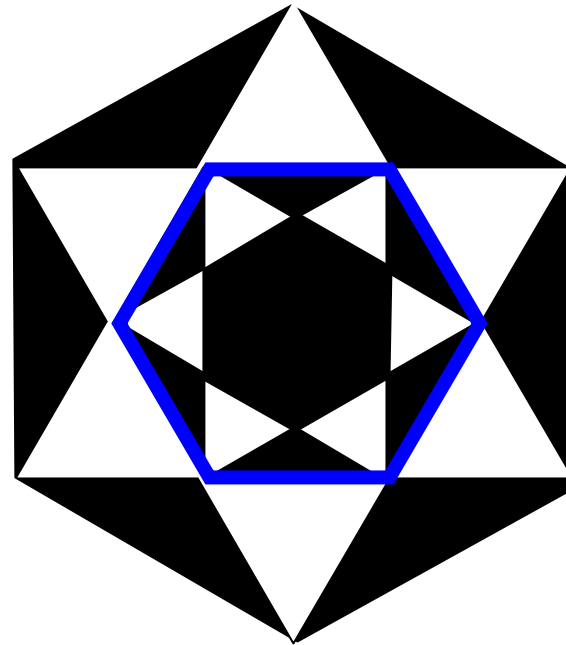


$$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$$

6(2)



1回終了



2回終了

黒 - **白** = **一番内側の正六角形**

最初の
正六角形

1

2回終了のときの
一番内側の正六角形

$$\frac{1}{9}$$

6回終了のときの
一番内側の正六角形

$$\frac{1}{9} \times \frac{1}{9} \times \frac{1}{9} = \frac{1}{729}$$

729

1

$$\boxed{\text{黒}} + \boxed{\text{白}} = 729$$

$$\boxed{\text{黒}} - \boxed{\text{白}} = 1$$

$$2 \times \boxed{\text{黒}} = 730$$

$$\boxed{\text{黒}} = 365$$

$$\boxed{\text{白}} = 364$$