

関東学院中学校

2006

$$[1] 1 - \left( \frac{7}{59} - \frac{2}{17} \right) \div 2$$

$$= 1 - \frac{1}{59 \times 17} \div 2$$

$$= \frac{2006 - 1}{2006}$$

$$= \frac{2005}{2006}$$

$$\begin{array}{r} 17 \\ \times 7 \\ \hline 119 \end{array}$$

$$\begin{array}{r} 59 \\ \times 2 \\ \hline 118 \end{array}$$

$$\begin{array}{r} 59 \\ \times 17 \\ \hline 413 \\ 59 \phantom{0} \\ \hline 1003 \end{array}$$

$$[2] \left( 1\frac{3}{4} - 3 \div \square \right) \times 1.6 = \frac{12}{25} \quad ( ) = \frac{12}{25} \div 1.6 = \frac{12}{25} \times \frac{10}{16} = \frac{3}{10}$$

$$1\frac{3}{4} - 3 \div \square = \frac{3}{10} \quad \therefore 1\frac{3}{4} - \frac{3}{10} = \frac{35}{20} - \frac{6}{20} = \frac{29}{20}$$

$$3 \div \square = \frac{29}{20}$$

$$\square = 3 \div \frac{29}{20} = 3 \times \frac{20}{29} = \frac{60}{29} = 2\frac{2}{29}$$

$$[3] \begin{array}{l} \text{分子} \xrightarrow{6} \\ \text{分母} \xrightarrow{13} \end{array} \left. \vphantom{\begin{array}{l} \text{分子} \\ \text{分母} \end{array}} \right\} 114 \text{ (19)}$$

$$114 \times \frac{6}{19} = 36$$

$$114 \times \frac{13}{19} = 78$$

$$A, \frac{36}{78}$$

$$[4] 24 \times 50000 = 1200000 \text{ cm} = 12000 \text{ m} = 12 \text{ km}$$

$$12 \div 36 = \frac{1}{3} \text{ 時間} = 60 \text{ 分} \times \frac{1}{3} = 20$$

$$A 20 \text{ 分}$$

$$[5] \text{ 73 本計算 } (870 \text{ 円} - 5 \text{ 円} \times 39) \div (50 - 5) = 15 \dots 50 \text{ 円}$$

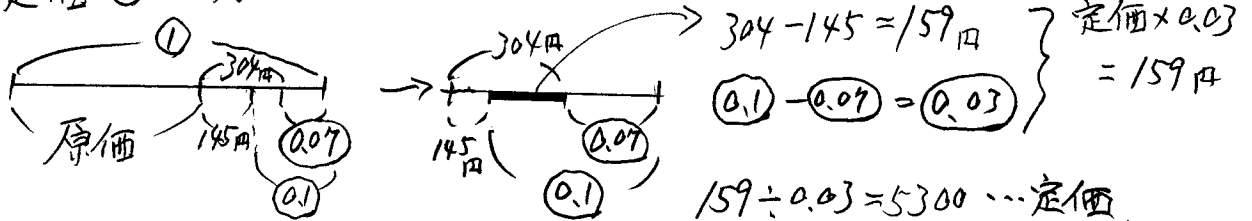
$$\begin{array}{r} 15 \\ 45 \overline{) 675} \\ \underline{45} \phantom{0} \\ 225 \\ \underline{225} \\ 0 \end{array}$$

$$\begin{array}{r} 195 \\ 675 \end{array}$$

$$39 - 15 = 24$$

$$A 24 \text{ 本}$$

[6] 定価①と22%



$$5300 \times (1 - 0.07) - 304 = 4625$$

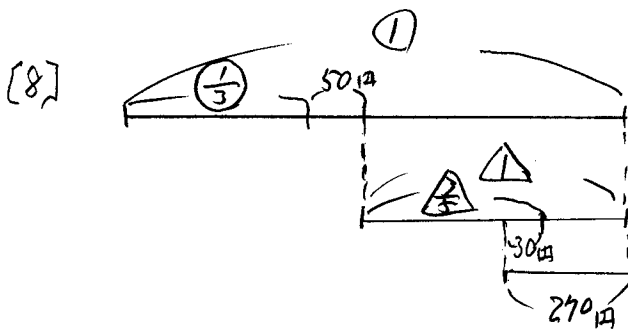
$$(又は 5300 - 5300 \times 0.07 - 304)$$

A 4625円[7] 1日Aは  $1 \div 30 = \frac{1}{30}$  Bは  $1 \div 42 = \frac{1}{42}$ 

$$2人7日分 \quad \frac{1}{30} + \frac{1}{42} = \frac{7+5}{210} = \frac{12}{210} = \frac{2}{35}$$

$$1時間分 \quad \frac{2}{35} \div 9 = \frac{2}{315}$$

$$1 \div \frac{2}{315} = 157 \frac{1}{2} \quad 1 - \frac{2}{35} \times 17 = \frac{1}{35} \dots 18日 \quad \frac{1}{35} \div \frac{2}{315} = 4 \frac{1}{2} \text{時間}$$

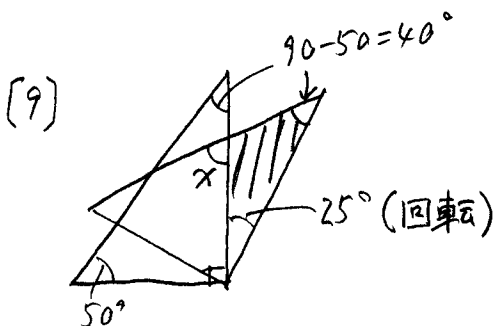
A. 18日に4時間30分

$$270 - 30 = 240\text{m} \dots \frac{2}{5}$$

$$240 \div \frac{2}{5} = 600\text{m} \dots \frac{1}{3}$$

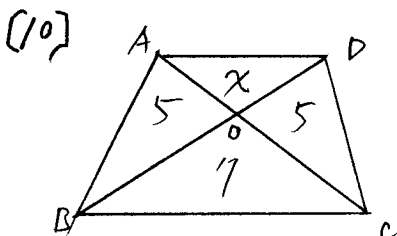
$$600 + 50 = 650\text{m} \dots \frac{2}{3}$$

$$650 \div \frac{2}{3} = 975 \quad \text{A } 975\text{m}$$



xは斜線の三角形の外角

$$40 + 25 = 65$$

A 65°

$$\triangle AOB : \triangle BOC = 5 : 7 \rightarrow AO : CO = 5 : 7$$

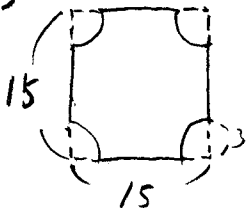
$$\triangle AOD : \triangle DOC = 5 : 7$$

$$5 : 7 = x : 5 \quad x = \frac{25}{7} = 3 \frac{4}{7}$$

$$5 + 5 + 7 + 3 \frac{4}{7} = 20 \frac{4}{7}$$

A  $20 \frac{4}{7} \text{cm}^2$

[11]



$$15 \times 15 - 3 \times 3 \times 3.14 = 196.74 \text{ cm}^2 \dots \text{底面積}$$

$$\underbrace{9 \text{ cm} \times 4}_{36} + \underbrace{6 \times 3.14}_{18.84} = 54.84 \text{ cm} \dots \text{底面の周}$$

$$196.74 \times 2 \text{ 枚} + \underbrace{54.84 \times 5}_{\text{側面積}} = 667.68$$

$$\underline{A \ 667.68 \text{ cm}^2}$$

$$[12] \quad 108000 \div 3600 = 30 \text{ m/秒} \quad 72000 \div 3600 = 20 \text{ m/秒}$$

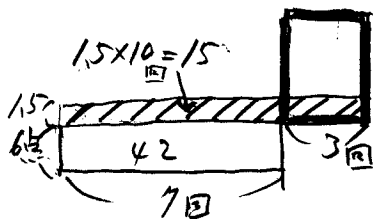
$$(30 + 20) \times 9 = 450 \text{ m} \dots A+B \quad 450 \div 2 = 225 \text{ m} \dots A \text{ と } B \text{ の長さ}$$

$$225 - 30 = 195 \text{ m} \dots C \text{ の長さ}$$

$$(225 + 195) \div (30 - 20) = 42$$

$$\underline{A \ 42 \text{ 秒}}$$

[13]

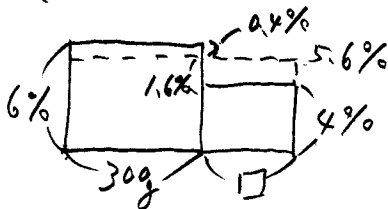


$$42 + 15 = 57 \text{ 点}$$

$$57 \div 3 = 19$$

$$\underline{A \ 19 \text{ 点}}$$

$$[14] \quad (100 \times 0.06 + 200 \times 0.03) \div (100 + 200) = 0.04 \rightarrow B \text{ は } 4\%$$



$$0.4 : 1.6 = 1 : 4$$

$$1 : 4 = \square : 300$$

$$\square = 75$$

$$\underline{A \ 75 \text{ g}}$$

[15]

$$\text{一郎} \rightarrow \bigcirc \bigcirc \bigcirc 12, \bigcirc \bigcirc \bigcirc 24, \bigcirc \bigcirc \bigcirc 32, \bigcirc \bigcirc \bigcirc 52$$

$$\text{三郎} \rightarrow \quad \quad \quad \times \quad \quad \quad \times$$

$$\text{二郎} \quad \quad \quad \times \quad \quad \quad 41352$$

(和がすべて同じ  $\rightarrow (1, 5)(2, 4)(3, 3)(4, 2)(5, 1)$  の組合せ)

★  $\bigcirc \bigcirc \bigcirc 24$  の入れ換えは  $42024$  になっている

$$\underline{A \ 41352}$$