

# BAB 2

LATIHAN SOAL AKHIR BAB,  
SOAL URAIAN, DAN MODEL  
SOAL AKM

1. 14 jeruk dibagi menjadi 7 bagian.

$$\Rightarrow 1 \text{ bagian} = 2 \text{ jeruk} \quad \downarrow \div 7$$

$$\Rightarrow 3 \text{ bagian} = 6 \text{ jeruk.}$$

a). Jeruk bagian kakak adalah 6 jeruk

$$\begin{aligned} \text{b). Sisa jeruk Susi} &= 7 \text{ bagian} - 3 \text{ bagian} \\ &= 4 \text{ bagian.} \end{aligned}$$

$$4 \text{ bagian} = 4 \times 2 \text{ jeruk} = 8 \text{ jeruk}$$

$$\Rightarrow \text{Sisa jeruk Susi adalah } 8 \text{ jeruk.}$$

$$\text{c). Sisa jeruk Susi} = 4 \text{ bagian.}$$

2. Uang Rp1.500,00 akan dibagi menjadi 3 bagian.

$$\begin{aligned} \Rightarrow 3 \text{ bagian} &= \text{Rp1.500,00} \\ \Rightarrow 1 \text{ bagian} &= \text{Rp500,00} \quad \downarrow \div 3. \end{aligned}$$

$$\begin{aligned} \text{a). Sumbangan Tono} &= 2 \text{ bagian} \\ &= 2 \times \text{Rp500,00} \\ &= \text{Rp1.000,00} \end{aligned}$$

$$\begin{aligned} \text{b). Sisa uang Tono} &= \text{Uang mula-mula} \\ &\quad - \text{sumbangan Tono} \\ &= \text{Rp1.500,00} - \text{Rp1.000,00} \\ &= \text{Rp500,00.} \end{aligned}$$

3. Kawat 25 m akan dibagi menjadi 5 bagian

$$\begin{aligned} \Rightarrow 5 \text{ bagian} &= 25 \text{ m} \\ \Rightarrow 1 \text{ bagian} &= 5 \text{ m} \quad \downarrow \div 5 \end{aligned}$$

$$\begin{aligned} \text{a). Kawat yang diambil} &= 2 \text{ bagian.} \\ &= 2 \times 5 \text{ m} = 10 \text{ m} \end{aligned}$$

$$\text{b). Sisa kawat} = 25 \text{ m} - 10 \text{ m} = 15 \text{ m}$$

$$\begin{aligned} \text{c). Sisa kawat} &= 5 \text{ bagian} - 2 \text{ bagian} \\ &= 3 \text{ bagian} \end{aligned}$$

4. 40 siswa dibagi menjadi 5 bagian.

$$\begin{aligned} \Rightarrow 5 \text{ bagian} &= 40 \text{ siswa} \\ \Rightarrow 1 \text{ bagian} &= 8 \text{ siswa} \quad \downarrow \div 5 \end{aligned}$$

Dik: 3 bagian adalah siswa pria.

Jumlah siswa perempuan

$$\begin{aligned} &= 5 \text{ bagian} - 3 \text{ bagian} = 2 \text{ bagian} \\ &= 2 \times 8 \text{ siswa} = 16 \text{ siswa} \end{aligned}$$

5. Setiap kali Tono dapat permen. Dari 8 bagian, 3 bagian akan diberikan ke adiknya.

$$\begin{aligned} \text{a). } 8 \text{ bagian} &= 8 \text{ permen.} \\ \Rightarrow 1 \text{ bagian} &= 1 \text{ permen.} \quad \downarrow \div 8. \end{aligned}$$

$$\begin{aligned} \text{Banyak bagian Adik} &= 3 \text{ bagian} \\ &= 3 \times 1 \text{ permen} \\ &= 3 \text{ permen.} \end{aligned}$$

$$\begin{aligned} \text{b). } 8 \text{ bagian} &= 16 \text{ permen.} \\ \Rightarrow 1 \text{ bagian} &= 2 \text{ permen.} \quad \downarrow \div 8 \end{aligned}$$

$$\begin{aligned} \text{Banyak bagian Adik} &= 3 \text{ bagian} \\ &= 3 \times 2 \text{ permen} \\ &= 6 \text{ permen.} \end{aligned}$$

$$\begin{aligned} \text{c). } 8 \text{ bagian} &= 24 \text{ permen.} \\ \Rightarrow 1 \text{ bagian} &= 3 \text{ permen} \quad \downarrow \div 8. \end{aligned}$$

$$\begin{aligned} \text{Banyak bagian Adik} &= 3 \text{ bagian} \\ &= 3 \times 3 \text{ permen} \\ &= 9 \text{ permen.} \end{aligned}$$

$$1.a). \frac{16}{24} = \frac{16:8}{24:8} = \frac{2}{3}$$

$$b). \frac{20}{25} = \frac{20:5}{25:5} = \frac{4}{5}$$

$$c). \frac{72}{81} = \frac{72:9}{81:9} = \frac{8}{9}$$

$$d). \frac{132}{144} = \frac{132:12}{144:12} = \frac{11}{12}$$

$$e). \frac{14}{49} = \frac{14:7}{49:7} = \frac{2}{7}$$

$$f). \frac{70}{182} = \frac{70:2}{182:2} = \frac{35}{91} = \frac{35:7}{91:7} = \frac{5}{13}$$

$$2.a). \frac{8}{72} = \frac{8:2}{72:2} = \frac{4}{36} = \frac{4:2}{36:2} = \frac{2}{18} = \frac{2:2}{18:2} = \frac{1}{9}$$

$$b). \frac{5}{9} = \frac{5 \times 2}{9 \times 2} = \frac{10}{18} = \frac{10 \times 2}{18 \times 2} = \frac{20}{36} = \frac{20:2}{36:2} = \frac{10}{18} = \frac{10:2}{18:2} = \frac{5}{9}$$

$$c). \frac{4}{11} = \frac{4 \times 2}{11 \times 2} = \frac{8}{22} = \frac{8 \times 3}{22 \times 3} = \frac{24}{66} = \frac{24:3}{66:3} = \frac{8}{22} = \frac{8:2}{22:2} = \frac{4}{11}$$

$$d). \frac{1}{5} = \frac{1 \times 2}{5 \times 2} = \frac{2}{10} = \frac{2 \times 5}{10 \times 5} = \frac{10}{50} = \frac{10:5}{50:5} = \frac{2}{10} = \frac{2:2}{10:2} = \frac{1}{5}$$

3.a) Diketahui  $3 \times 12 = 36$

$$\Rightarrow \frac{2}{3} = \frac{2 \times 12}{3 \times 12} = \frac{24}{36} = \frac{24}{36} \Rightarrow 24$$

b) Diketahui  $4 \times 3 = 12$

$$\Rightarrow \frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12} = \frac{9}{12} \Rightarrow 9$$

c) Diketahui  $4 \times 6 = 24$

$$\Rightarrow \frac{4}{5} = \frac{4 \times 6}{5 \times 6} = \frac{24}{30} = \frac{24}{30} \Rightarrow 24$$

d) Diketahui  $5 \times 7 = 35$

$$\Rightarrow \frac{5}{7} = \frac{5 \times 7}{7 \times 7} = \frac{35}{49} = \frac{35}{49} \Rightarrow 35$$

4.a) Diketahui  $18 \times 6 = 108$

$$\Rightarrow \frac{5}{18} = \frac{5 \times 6}{18 \times 6} = \frac{30}{108}$$

b) Diketahui  $9 \times 12 = 108$

$$\Rightarrow \frac{7}{9} = \frac{7 \times 12}{9 \times 12} = \frac{84}{108}$$

c) Diketahui  $108 \times 4 = 432$

$$\Rightarrow \frac{36}{432} = \frac{36:4}{432:4} = \frac{9}{108}$$

d) Diketahui  $36 \times 3 = 108$

$$\Rightarrow \frac{17}{36} = \frac{17 \times 3}{36 \times 3} = \frac{51}{108}$$

$$5.a). \frac{1}{2} = \frac{1 \times 9}{2 \times 9} = \frac{9}{18} \rightarrow \text{senilai}$$

$$\frac{9}{18}$$

$$b). \frac{1}{2} = \frac{1 \times 15}{2 \times 15} = \frac{15}{30}$$

$$\frac{7}{15} = \frac{7 \times 2}{15 \times 2} = \frac{14}{30}$$

$$c). \frac{11}{36} = \frac{11 \times 2}{36 \times 2} = \frac{22}{72} \rightarrow \text{senilai}$$

$$\frac{22}{72}$$

$$d). \frac{23}{36} = \frac{23 \times 2}{36 \times 2} = \frac{46}{72} \rightarrow \text{tidak senilai}$$

$$\frac{46}{72}$$

1. a)  $\frac{4}{7} > \frac{3}{7}$  karena  $4 > 3$

b)  $\frac{1}{3} = \frac{1 \times 4}{3 \times 4} = \frac{4}{12}$ ,  $\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12}$

karena  $4 > 3 \Rightarrow \frac{4}{12} > \frac{3}{12} = \frac{1}{4} \Rightarrow \frac{1}{3} > \frac{1}{4}$

c)  $\frac{23}{25}, \frac{7}{8} \Leftrightarrow \frac{23 \times 8}{25 \times 8}, \frac{7 \times 25}{8 \times 25}$

$\Leftrightarrow \frac{184}{200}, \frac{175}{200}$

Karena  $184 > 175$ .

$\Rightarrow \frac{23}{25} = \frac{184}{200} > \frac{175}{200} = \frac{7}{8} \Leftrightarrow \frac{23}{25} > \frac{7}{8}$

d) "Kasus khusus

Jika pembilang sama, maka pecahan yang lebih besar akan memiliki penyebut yang lebih kecil

Karena  $7 < 11 \Rightarrow \frac{3}{7} > \frac{3}{11}$

2. a)  $\left(\frac{3}{4}, \frac{4}{3}\right) = \left(\frac{3 \times 3}{4 \times 3}, \frac{4 \times 4}{3 \times 4}\right) = \left(\frac{9}{12}, \frac{16}{12}\right)$

Karena  $9 < 16$

$\Rightarrow \frac{3}{4} = \frac{9}{12} < \frac{16}{12} = \frac{4}{3} \Leftrightarrow \frac{3}{4} < \frac{4}{3}$

b) Karena  $9 > 1 \Rightarrow \frac{7}{9} < \frac{7}{1}$

c)  $\left(\frac{4}{11}, \frac{5}{13}\right) = \left(\frac{4 \times 13}{11 \times 13}, \frac{5 \times 11}{13 \times 11}\right) = \left(\frac{52}{143}, \frac{55}{143}\right)$

Karena  $52 < 55$

$\Rightarrow \frac{4}{11} = \frac{52}{143} < \frac{55}{143} = \frac{5}{13} \Leftrightarrow \frac{4}{11} < \frac{5}{13}$

d)  $\left(\frac{11}{18}, \frac{16}{27}\right) = \left(\frac{11 \times 3}{18 \times 3}, \frac{16 \times 2}{27 \times 2}\right) = \left(\frac{33}{54}, \frac{32}{54}\right)$

Karena  $33 > 32$

$\Rightarrow \frac{11}{18} = \frac{33}{54} > \frac{32}{54} = \frac{16}{27} \Leftrightarrow \frac{11}{18} > \frac{16}{27}$

3. a)  $\left(\frac{2}{3}, \frac{3}{4}, \frac{7}{8}\right) = \left(\frac{2 \times 8}{3 \times 8}, \frac{3 \times 6}{4 \times 6}, \frac{7 \times 3}{8 \times 3}\right)$   
 $= \left(\frac{16}{24}, \frac{18}{24}, \frac{21}{24}\right)$

Karena  $16 < 18 < 21$  maka urutan terkecil hingga terbesar adalah

$\frac{16}{24}, \frac{18}{24}, \frac{21}{24} = \frac{2}{3}, \frac{3}{4}, \frac{7}{8}$

b) Karena  $20 > 18 > 12$  maka urutan terkecil hingga terbesar adalah.

$\frac{11}{20}, \frac{11}{18}, \frac{11}{12}$

c)  $\left(\frac{5}{6}, \frac{13}{24}, \frac{16}{27}\right) = \left(\frac{5 \times 36}{6 \times 36}, \frac{13 \times 9}{24 \times 9}, \frac{16 \times 8}{27 \times 8}\right)$   
 $= \left(\frac{180}{216}, \frac{117}{216}, \frac{128}{216}\right)$

Karena  $117 < 128 < 180$  maka urutan terkecil hingga terbesar adalah

$\frac{117}{216}, \frac{128}{216}, \frac{180}{216} = \frac{13}{24}, \frac{16}{27}, \frac{5}{6}$

4. a)  $\left(\frac{1}{8}, \frac{1}{7}\right) = \left(\frac{1 \times 7}{8 \times 7}, \frac{1 \times 8}{7 \times 8}\right) = \left(\frac{7}{56}, \frac{8}{56}\right)$   
 $= \left(\frac{7 \times 2}{56 \times 2}, \frac{8 \times 2}{56 \times 2}\right) = \left(\frac{14}{112}, \frac{16}{112}\right)$

Karena 15 ada di antara 14 dan 16

$\Rightarrow$  Pecahan di antara  $\frac{1}{8}$  dan  $\frac{1}{7}$  adalah  $\frac{15}{112}$

b)  $\left(\frac{1}{12}, \frac{1}{11}\right) = \left(\frac{1 \times 11}{12 \times 11}, \frac{1 \times 12}{11 \times 12}\right) = \left(\frac{11}{132}, \frac{12}{132}\right)$   
 $= \left(\frac{11 \times 2}{132 \times 2}, \frac{12 \times 2}{132 \times 2}\right) = \left(\frac{22}{264}, \frac{24}{264}\right)$

Karena 23 ada di antara 22 dan 24

$\Rightarrow$  Pecahan di antara  $\frac{1}{12}$  dan  $\frac{1}{11}$  adalah

$\frac{23}{264}$

$$4.c). \left( \frac{5}{11}, \frac{2}{7} \right) = \left( \frac{5 \times 7}{11 \times 7}, \frac{2 \times 11}{7 \times 11} \right) = \left( \frac{35}{77}, \frac{22}{77} \right)$$

Pilih bilangan sembarang di antara 22 dan 35, contoh 33.

Karena 33 ada di antara 22 dan 35

$\Rightarrow$  Pecahan di antara  $\frac{5}{11}$  dan  $\frac{2}{7}$  adalah

$$\frac{33}{77} = \frac{3}{7}$$

$$d). \left( \frac{4}{13}, \frac{5}{6} \right) = \left( \frac{4 \times 6}{13 \times 6}, \frac{5 \times 13}{6 \times 13} \right) = \left( \frac{24}{78}, \frac{65}{78} \right)$$

Karena 52 ada di antara 24 dan 65

$\Rightarrow$  Pecahan di antara  $\frac{4}{13}$  dan  $\frac{5}{6}$  adalah.

$$\frac{52}{78} = \frac{52 \div 13}{78 \div 13} = \frac{4}{6} = \frac{4 \div 2}{6 \div 2} = \frac{2}{3}$$

5.  $\frac{a}{b}$  dan  $\frac{c}{d}$ .

$$a). b = d \Rightarrow \left( \frac{a}{b}, \frac{c}{d} \right) = \left( \frac{a}{d}, \frac{c}{d} \right)$$

Karena  $a > c$ , maka yang lebih

besar adalah  $\frac{a}{d} = \frac{a}{b}$

$$b). a = c \Rightarrow \left( \frac{a}{b}, \frac{c}{d} \right) = \left( \frac{c}{b}, \frac{c}{d} \right)$$

Karena  $b > d$ , maka pecahan yang

lebih besar di antara  $\frac{a}{b}$  dan  $\frac{c}{d}$ .

adalah  $\frac{c}{d}$

1.a). Jika 7 dibagi 5 akan memberikan hasil bagi 1 dan sisa 2 ( $7 = 5 \times 1 + 2$ ) sehingga  $\frac{7}{5} = 1 \frac{2}{5}$ .

b).  $23 = 5 \times 4 + 3$ .

$\Rightarrow \frac{23}{5} = 4 \frac{3}{5}$ .

c).  $27 = 7 \times 3 + 6 \Rightarrow \frac{27}{7} = 3 \frac{6}{7}$

d).  $32 = 6 \times 5 + 2 \Rightarrow \frac{32}{6} = 5 \frac{2}{6}$

2.a).  $7 \frac{2}{3} = 7 + \frac{2}{3} = \frac{7 \times 3}{1 \times 3} + \frac{2}{3} = \frac{23}{3}$

b).  $8 \frac{3}{7} = 8 + \frac{3}{7} = \frac{8 \times 7}{1 \times 7} + \frac{3}{7} = \frac{59}{7}$

c).  $6 \frac{3}{5} = 6 + \frac{3}{5} = \frac{6 \times 5}{1 \times 5} + \frac{3}{5} = \frac{33}{5}$

d).  $10 \frac{2}{5} = 10 + \frac{2}{5} = \frac{10 \times 5}{1 \times 5} + \frac{2}{5} = \frac{52}{5}$

3. "Jika bilangan dibagi a akan memberikan hasil bagi b dan sisa c, maka bilangan tersebut berbentuk  $a \times b + c$ ."

Misalkan x bilanganyang dicari

a).  $x = 5 \times 3 + 2 = 17$ .

b).  $x = 7 \times 6 + 3 = 45$ .

c).  $x = 13 \times 3 + 11 = 50$

d).  $x = 10 \times 5 + 7 = 57$ .

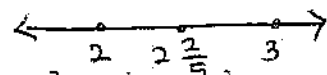
4.a)  $27 = 5 \times 5 + 2 \Rightarrow \frac{27}{5} = 5 \frac{2}{5}$ .

b)  $54 = 10 \times 5 + 4 \Rightarrow \frac{54}{10} = 5 \frac{4}{10}$

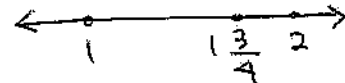
c).  $15 = 4 \times 3 + 3 \Rightarrow \frac{15 \text{ jeruk}}{4} = 3 \frac{3}{4} \text{ jeruk.}$

4.d).  $27 = 10 \times 2 + 7 \Rightarrow \frac{27 \text{ semangka}}{10} = 2 \frac{7}{10} \text{ semangka}$

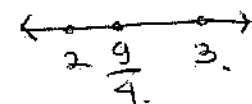
5.a). Diketahui  $0 = \frac{0}{5} < \frac{2}{5} < \frac{5}{5} = 1$ .

$\Rightarrow 2 < 2 \frac{2}{5} < 3$ . 

b). Diketahui  $0 = \frac{0}{4} < \frac{3}{4} < \frac{4}{4} = 1$

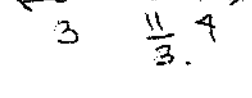
$\Rightarrow 1 < 1 \frac{3}{4} < 2$ . 

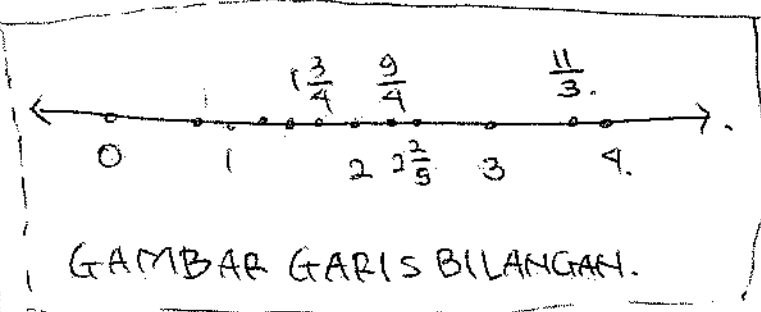
c). Diketahui  $9 = 4 \times 2 + 1$ .

$8 < 9 < 12$ . 

$\Rightarrow \frac{8}{4} = 2 < \frac{9}{4} < 3 = \frac{12}{4}$ .

d). Diketahui  $9 < 11 < 12$ .

$\Rightarrow 3 = \frac{9}{3} < \frac{11}{3} < \frac{12}{3} = 4$ . 



$$1. a). \frac{3}{5} + \frac{4}{5} = \frac{7}{5} = 1 \frac{2}{5}$$

$$\begin{aligned} b). 5\frac{2}{3} + 7\frac{3}{4} &= (5+7) + \left(\frac{2}{3} + \frac{3}{4}\right) \\ &= 12 + \left(\frac{2 \times 4}{3 \times 4} + \frac{3 \times 3}{4 \times 3}\right) \\ &= 12 + \frac{8}{12} + \frac{9}{12} \\ &= 12 \frac{17}{12} = 12 + 1 + \frac{5}{12} \\ &= 13 \frac{5}{12} \end{aligned}$$

$$\begin{aligned} c). \frac{6}{7} + \frac{5}{6} &= \frac{6 \times 6}{7 \times 6} + \frac{5 \times 7}{6 \times 7} = \frac{36 + 35}{42} = \frac{71}{42} \\ &= 1 \frac{29}{42} \end{aligned}$$

$$\begin{aligned} d). 6\frac{2}{7} + 8\frac{2}{5} &= (6+8) + \left(\frac{2}{7} + \frac{2}{5}\right) \\ &= 14 + \left(\frac{2 \times 5 + 2 \times 7}{5 \times 7}\right) \\ &= 14 + \frac{24}{35} \\ &= 14 \frac{24}{35} \end{aligned}$$

$$2. a). \frac{4}{5} - \frac{2}{3} = \frac{4 \times 3 - 2 \times 5}{3 \times 5} = \frac{12 - 10}{15} = \frac{2}{15}$$

$$\frac{2}{3} - \frac{4}{5} = \frac{2 \times 5 - 4 \times 3}{3 \times 5} = \frac{10 - 12}{15} = \frac{-2}{15}$$

$$\begin{aligned} b). \left(\frac{4}{5} - \frac{2}{3}\right) - \frac{1}{7} &= \frac{2}{15} - \frac{1}{7} = \frac{2 \times 7 - 1 \times 15}{15 \times 7} \\ &= \frac{14 - 15}{105} = \frac{-1}{105} \end{aligned}$$

$$\begin{aligned} \bullet \left(\frac{4}{5}\right) - \left(\frac{2}{3} - \frac{1}{7}\right) &= \frac{4}{5} - \left(\frac{2 \times 7 - 1 \times 3}{3 \times 7}\right) \\ &= \frac{4}{5} - \left(\frac{14 - 3}{21}\right) = \frac{4}{5} - \frac{11}{21} \\ &= \frac{4 \times 21 - 11 \times 5}{5 \times 21} = \frac{84 - 55}{105} \\ &= \frac{29}{105} \end{aligned}$$

2. Lanjutan

Berdasarkan Hasil 2.a dan 2.b.  
maka sifat komutatif dan asosiatif  
tidak berlaku untuk operasi pengurangan

3. a) Karena  $3 < 5 < 8$  maka susunan dari  
terkecil hingga terbesar adalah  
 $\frac{3}{9}, \frac{5}{9}, \frac{8}{9}$

$$b). \left(\frac{1}{4}, \frac{3}{8}, \frac{1}{2}\right) = \left(\frac{1 \times 2}{4 \times 2}, \frac{3}{8}, \frac{1 \times 4}{2 \times 4}\right) = \left(\frac{2}{8}, \frac{3}{8}, \frac{4}{8}\right)$$

Karena  $2 < 3 < 4$  maka susunan dari  
terkecil hingga terbesar adalah.

$$\frac{2}{8}, \frac{3}{8}, \frac{4}{8} = \frac{1}{4}, \frac{3}{8}, \frac{1}{2}$$

$$4. a). 17\frac{2}{7} - \frac{6}{7} = 12 + 1\frac{2}{7} - \frac{6}{7} = 12 + \frac{9}{7} - \frac{6}{7} = 12\frac{3}{7}$$

$$\begin{aligned} b). 27\frac{2}{7} - 5\frac{6}{7} &= (27-5) + \frac{2}{7} - \frac{6}{7} = 22 - \frac{4}{7} \\ &= 21 + \frac{7}{7} - \frac{4}{7} = 21\frac{3}{7} \end{aligned}$$

$$\begin{aligned} c). 35\frac{5}{17} - 5\frac{2}{3} &= 30 + \frac{5}{17} - \frac{2}{3} = 30 + \frac{5 \times 3 - 2 \times 17}{3 \times 17} \\ &= 30 + \frac{15 - 34}{51} = 30 - \frac{19}{51} \\ &= 29 \frac{5(-19)}{51} = 29 \frac{32}{51} \end{aligned}$$

$$\begin{aligned} d). 23\frac{5}{12} - 8\frac{3}{4} &= 15 + \frac{5 \times 1 - 3 \times 3}{12} = 15 + \frac{-4}{12} \\ &= 14 \frac{12-4}{12} = 14 \frac{8}{12} = 14 \frac{2}{3} \end{aligned}$$

$$\begin{aligned} 5. a) \text{ waktu untuk matematika dan bahasa inggris} \\ &= \frac{1}{8} + \frac{3}{20} = \frac{1 \times 5 + 3 \times 2}{40} = \frac{5+6}{40} = \frac{11}{40} \end{aligned}$$

$$\begin{aligned} b) \text{ waktu untuk matematika dan istirahat} \\ &= \frac{1}{8} + \frac{1}{20} = \frac{1 \times 5 + 1 \times 2}{40} = \frac{5+2}{40} = \frac{7}{20} \end{aligned}$$

$$\begin{aligned} c) \text{ Waktu untuk semua pelajaran kecuali istirahat} \\ &= 1 - \frac{1}{20} = \frac{20-1}{20} = \frac{19}{20} \end{aligned}$$

$$1. a) \frac{1}{2} \times \frac{3}{4} = \frac{1 \times 3}{2 \times 4} = \frac{3}{8}$$

$$b) \frac{2}{3} \times \frac{1}{3} = \frac{2 \times 1}{3 \times 3} = \frac{2}{9}$$

$$c) \frac{3}{4} \times \frac{1}{5} = \frac{3 \times 1}{4 \times 5} = \frac{3}{20}$$

$$d) \frac{2}{5} \times \frac{2}{3} = \frac{2 \times 2}{5 \times 3} = \frac{4}{15}$$

$$2. a) \frac{2}{5} \times \frac{3}{4} = \frac{2 \times 3}{5 \times 2 \times 2} = \frac{3}{10}$$

$$b) \frac{11}{25} \times \frac{5}{22} = \frac{11 \times 5}{25 \times 2 \times 11} = \frac{1}{10}$$

$$c) \frac{3}{8} \times \frac{2}{9} = \frac{3 \times 2}{4 \times 2 \times 3 \times 3} = \frac{1}{12}$$

$$d) \frac{7}{2} \times \frac{2}{49} = \frac{7}{7 \times 7} = \frac{1}{7}$$

$$3. a) 2 \frac{1}{2} \times \frac{4}{5} = \frac{5}{2} \times \frac{2 \times 2}{5} = 2$$

$$b) 8 \frac{3}{4} \times 2 \frac{2}{7} = \frac{35}{4} \times \frac{16}{7} = \frac{5 \times 7 \times 4 \times 4}{4 \times 7} = 20$$

$$c) 5 \times 4 \frac{3}{5} = 5 \times \frac{23}{5} = 23$$

$$d) 2 \frac{1}{7} \times 14 = \frac{15}{7} \times 14 = 30$$

4. sewa rumah =  $\frac{1}{3}$  dari gaji

makanan =  $\frac{1}{4}$  dari gaji

Transportasi =  $\frac{1}{5}$  dari gaji

keperluan lainnya =  $\frac{1}{6}$  dari gaji

Disimpan = sisanya

$$\begin{aligned} \Rightarrow \text{Disimpan} &= 1 - \left( \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} \right) \\ &= 1 - \left( \frac{1 \times 20 + 1 \times 15 + 1 \times 12 + 1 \times 10}{60} \right) \\ &= 1 - \left( \frac{20 + 15 + 12 + 10}{60} \right) \\ &= \frac{60}{60} - \frac{57}{60} = \frac{3}{60} = \frac{1}{20} \text{ dari gaji} \end{aligned}$$

5. seseorang memberikan  $\frac{1}{3}$  bagian dari uangnya kepada A.

$\Rightarrow$  sisa uang orang tersebut

=  $\frac{2}{3}$  bagian dari uangnya

Lalu, B juga diberi  $\frac{1}{3}$  bagian dari sisanya.

$\Rightarrow$  Bagian yang diterima oleh B

=  $\frac{1}{3} \times \frac{2}{3}$  bagian dari uang orang tersebut

=  $\frac{2}{9}$  bagian dari uang orang tersebut



$$1. a). \frac{1}{3} : \frac{2}{3} = \frac{1}{3} \times \frac{3}{2} = \frac{1}{2}.$$

$$b). \frac{3}{4} : \frac{1}{4} = \frac{3}{4} \times \frac{4}{1} = 3.$$

$$c). \frac{2}{3} : 4 = \frac{2}{3} \times \frac{1}{4} = \frac{2 \times 1}{3 \times 4} = \frac{2}{12} = \frac{1}{6}.$$

$$d). \frac{5}{6} : 7 = \frac{5}{6} \times \frac{1}{7} = \frac{5}{42}.$$

2. a). Bagilah  $11\frac{1}{4}$  dengan  $\frac{15}{16}$

$$11\frac{1}{4} : \frac{15}{16} = \frac{45}{4} \times \frac{16}{15} = \frac{15 \times 3 \times 4 \times 4}{4 \times 15} = 12.$$

b). Bagilah  $9\frac{1}{7}$  dengan  $11\frac{11}{21}$

$$9\frac{1}{7} : 11\frac{11}{21} = \frac{64}{7} : \frac{242}{21} = \frac{64}{7} \times \frac{21}{242} = \frac{32 \times 2 \times 7 \times 3}{7 \times 11 \times 22} = \frac{96}{121}.$$

$$3. a). \frac{5}{7} : \frac{2}{3} = \frac{5}{7} \times \frac{3}{2} = \frac{15}{14}.$$

$$\cdot \frac{2}{3} : \frac{5}{7} = \frac{2}{3} \times \frac{7}{5} = \frac{14}{15}.$$

$$b). \frac{3}{4} : 2\frac{2}{3} = \frac{3}{4} : \frac{8}{3} = \frac{3}{4} \times \frac{3}{8} = \frac{9}{32}.$$

$$\cdot 2\frac{2}{3} : \frac{3}{4} = \frac{8}{3} : \frac{3}{4} = \frac{8}{3} \times \frac{4}{3} = \frac{32}{9}.$$

Berdasarkan hasil a) dan b) maka dapat dilihat bahwa sifat komutatif tidak berlaku untuk operasi bagi, pada pecahan.

$$4. a). \left(\frac{3}{8} : \frac{2}{3}\right) : \frac{1}{2} = \left(\frac{3}{8} \times \frac{3}{2}\right) : \frac{1}{2} = \frac{9}{16} \times \frac{2}{1} = \frac{9}{8} = \frac{18 \times 2}{16 \times 2} = \frac{36}{32}.$$

$$\cdot \frac{3}{8} : \left(\frac{2}{3} : \frac{1}{2}\right) = \frac{3}{8} : \left(\frac{2}{3} \times \frac{2}{1}\right) = \frac{3}{8} : \frac{4}{3} = \frac{3}{8} \times \frac{3}{4} = \frac{9}{32}.$$

$$4. b). \left(5\frac{2}{3} : 1\frac{3}{4}\right) : 2\frac{1}{3} = \left(\frac{17}{3} : \frac{7}{4}\right) : \frac{7}{3} = \left(\frac{17}{3} \times \frac{4}{7}\right) : \frac{7}{3} = \frac{17 \times 4}{3 \times 7} : \frac{7}{3} = \frac{17 \times 4}{3 \times 7} \times \frac{3}{7} = \frac{68}{49}.$$

$$\cdot 5\frac{2}{3} : \left(1\frac{3}{4} : 2\frac{1}{3}\right) = \frac{17}{3} : \left(\frac{7}{4} : \frac{7}{3}\right) = \frac{17}{3} : \left(\frac{7}{4} \times \frac{3}{7}\right) = \frac{17}{3} : \frac{3}{4} = \frac{17}{3} \times \frac{4}{3} = \frac{68}{9}.$$

Berdasarkan hasil a) dan b) maka dapat dilihat bahwa sifat asosiatif untuk pembagian pecahan tidak berlaku.

$$5. a). \frac{3}{8} : \frac{1}{4} = \frac{3}{8} \times \frac{4}{1} = \frac{3 \times 4}{8 \times 1} = \frac{12}{8} = \frac{3}{2}.$$

$$b). \frac{1}{7} : \frac{2}{8} = \frac{1}{7} \times \frac{8}{2} = \frac{8}{7} = \frac{8}{7}.$$

$$c). \frac{3}{7} : \frac{2}{9} = \frac{3}{7} \times \frac{9}{2} = \frac{3 \times 9}{7 \times 2} = \frac{27}{14}.$$

$$d). \frac{\frac{2}{3} + \frac{6}{7}}{\frac{13}{27}} = \left(\frac{2 \times 7 + 6 \times 3}{3 \times 7}\right) \times \frac{27}{13} = \frac{(14 + 18) \times 9 \times 3}{3 \times 7 \times 13} = \frac{32 \times 9}{7 \times 13} = \frac{288}{91} = 3\frac{15}{91}.$$

$$1. a). \frac{5}{7} + \left(-\frac{11}{3}\right) = \frac{5}{7} + \frac{-11}{3} = \frac{5 \times 3 + (-11) \times 7}{7 \times 3}$$

$$= \frac{15 - 77}{21} = \frac{-(77 - 15)}{21} = \frac{-62}{21}$$

$$= -\frac{62}{21} = -2 \frac{20}{21}$$

$$b). \left(-\frac{7}{5}\right) + \frac{14}{3} = \frac{-7}{5} + \frac{14}{3} = \frac{(-7) \times 3 + 14 \times 5}{5 \times 3}$$

$$= \frac{-21 + 70}{15} = \frac{49}{15} = 3 \frac{4}{15}$$

$$c). -\frac{5}{11} - \left(\frac{9}{7}\right) = -\left(\frac{5}{11} + \frac{9}{7}\right) = -\left(\frac{5 \times 7 + 9 \times 11}{11 \times 7}\right)$$

$$= -\frac{35 + 99}{77} = -\frac{134}{77} = -1 \frac{57}{77}$$

$$d). -\frac{7}{12} - \left(-\frac{13}{11}\right) = \frac{13}{11} - \frac{7}{12} = \frac{13 \times 12 - 7 \times 11}{11 \times 12}$$

$$= \frac{156 - 77}{132} = \frac{79}{132}$$

$$2. a). \frac{5}{7} \times \left(-\frac{11}{2}\right) = -\frac{5 \times 11}{7 \times 2} = -\frac{55}{14} = -3 \frac{13}{14}$$

$$b). \left(-\frac{13}{2}\right) \times \left(-\frac{4}{26}\right) = \frac{13 \times 4}{2 \times 26} = \frac{13 \times 2 \times 2}{2 \times 2 \times 13} = 1$$

$$c). \left(-\frac{5}{4}\right) : \left(\frac{25}{2}\right) = \left(-\frac{5}{4}\right) \times \frac{2}{25} = -\frac{5 \times 2}{4 \times 25}$$

$$= -\frac{10}{100} = -\frac{1}{10}$$

$$d). \left(-3 \frac{2}{5}\right) \times \left(-7 \frac{2}{3}\right) = 3 \frac{2}{5} \times 7 \frac{2}{3} = \frac{17}{5} \times \frac{23}{3} = \frac{391}{15}$$

$$3. a). \frac{6}{3} + \dots = -\frac{4}{5} \Rightarrow -\frac{4}{5} - \frac{6}{3} = \dots ?$$

$$-\frac{4}{5} - \frac{6}{3} = -\left(\frac{4}{5} + \frac{6}{3}\right) = -\left(\frac{4 \times 3 + 6 \times 5}{5 \times 3}\right)$$

$$= -\frac{12 + 30}{15} = -\frac{42}{15} = -\frac{42 : 3}{15 : 3} = -\frac{14}{5}$$

$$\therefore \frac{6}{3} + \left(-\frac{14}{5}\right) = -\frac{4}{5}$$

$$3. b). \left(-\frac{7}{6}\right) + \dots = -\frac{1}{6} \Rightarrow -\frac{1}{6} - \left(-\frac{7}{6}\right) = \dots ?$$

$$-\frac{1}{6} - \left(-\frac{7}{6}\right) = -\frac{1}{6} + \frac{7}{6} = \frac{6}{6} = 1$$

$$\therefore \left(-\frac{7}{6}\right) + 1 = -\frac{1}{6}$$

$$c). \frac{5}{7} - \dots = -\frac{1}{2} \Leftrightarrow \frac{5}{7} - \left(-\frac{1}{2}\right) = \dots$$

$$\frac{5}{7} + \left(-\frac{1}{2}\right) = \frac{5}{7} + \frac{1}{2} = \frac{5 \times 2 + 1 \times 7}{7 \times 2} = \frac{17}{14} = 1 \frac{3}{14}$$

$$\therefore \frac{5}{7} - 1 \frac{3}{14} = -\frac{1}{2}$$

$$d). -5 \frac{2}{5} - \dots = -7 \frac{1}{2} \Leftrightarrow -5 \frac{2}{5} + 7 \frac{1}{2} = \dots ?$$

$$5 \frac{2}{5} + 7 \frac{1}{2} = 12 + \frac{2}{5} + \frac{1}{2} = 12 \frac{4+5}{10} = 12 \frac{9}{10}$$

$$\therefore -5 \frac{2}{5} - 12 \frac{9}{10} = -7 \frac{1}{2}$$

$$4. a). \left(-\frac{100}{3}, -30\right) = \left(-\frac{100}{3}, -\frac{90}{3}\right)$$

$$\text{karena } 100 > 90 \Rightarrow -\frac{100}{3} < -\frac{90}{3} = -30$$

$$b). \left(-\frac{17}{2}, -\frac{20}{3}\right) = \left(-\frac{17 \times 3}{2 \times 3}, -\frac{20 \times 2}{3 \times 2}\right) = \left(-\frac{51}{6}, -\frac{40}{6}\right)$$

$$\text{karena } 51 > 40 \Rightarrow -\frac{51}{6} < -\frac{40}{6} = -\frac{20}{3}$$

$$c). \left(\frac{1}{2}, \frac{1}{3}\right) = \left(\frac{3}{6}, \frac{2}{6}\right) \Rightarrow \left(-\frac{1}{2}, -\frac{1}{3}\right) = \left(-\frac{3}{6}, -\frac{2}{6}\right)$$

$$\text{karena } 3 > 2 \Rightarrow \frac{3}{6} > \frac{2}{6} \Rightarrow \frac{1}{2} > \frac{1}{3}$$

$$\Rightarrow -\frac{3}{6} < -\frac{2}{6} \Rightarrow -\frac{1}{2} < -\frac{1}{3}$$

$$d). \left(7 \frac{2}{3}, \frac{37}{5}\right) = \left(\frac{23}{3}, \frac{37}{5}\right) = \left(\frac{23 \times 5}{3 \times 5}, \frac{37 \times 3}{5 \times 3}\right)$$

$$= \left(\frac{115}{15}, \frac{111}{15}\right)$$

$$\text{karena } 115 > 111 \Rightarrow \frac{115}{15} > \frac{111}{15} \Rightarrow 7 \frac{2}{3} > \frac{37}{5}$$

$$\Rightarrow -\frac{115}{15} < -\frac{111}{15} \Rightarrow -7 \frac{2}{3} < -\frac{37}{5}$$

$$e). a > b > 0 \Rightarrow -a < -b$$

$$\text{contoh } a = \frac{1}{2}, b = \frac{1}{3} \text{ (bagian c)}$$

$$\begin{aligned} 5. a) \left(-\frac{1}{2}, -\frac{1}{3}\right) &= \left(-\frac{1 \times 3}{2 \times 3}, -\frac{1 \times 2}{3 \times 2}\right) = \left(-\frac{3}{6}, -\frac{2}{6}\right) \\ &= \left(-\frac{3 \times 2}{6 \times 2}, -\frac{2 \times 2}{6 \times 2}\right) = \left(-\frac{6}{12}, -\frac{4}{12}\right) \end{aligned}$$

Karena 5 ada di antara 6 dan 4

maka  $-\frac{5}{12}$  ada di antara  $-\frac{6}{12}$  dan  $-\frac{4}{12}$

$\Rightarrow -\frac{5}{12}$  ada di antara  $-\frac{1}{2}$  dan  $-\frac{1}{3}$

$$\begin{aligned} b) \left(-7\frac{2}{3}, -\frac{36}{5}\right) &= \left(-\frac{23}{3}, -\frac{36}{5}\right) = \\ &= \left(\frac{(-23) \times 5}{3 \times 5}, \frac{(-36) \times 3}{5 \times 3}\right) \\ &= \left(\frac{-115}{15}, \frac{-108}{15}\right) \end{aligned}$$

Karena  $-111$  ada di antara  $-115$  dan

$-108$  maka  $-\frac{111}{15}$  ada di antara.

$\frac{-115}{15}$  dan  $\frac{-108}{15}$

$\Rightarrow -\frac{111}{15}$  ada di antara  $-7\frac{2}{3}$  dan  $-\frac{36}{5}$

1. a)  $\frac{3}{4} + \square = 0 \Rightarrow \square = -\frac{3}{4}$

b)  $-\frac{5}{6} + \square = 0 \Rightarrow \square = -(-\frac{5}{6}) = \frac{5}{6}$

c)  $\square + 4\frac{2}{7} = 0 \Rightarrow \square = -4\frac{2}{7}$

d)  $\square + (-3\frac{2}{7}) = 0 \Rightarrow \square = -(-3\frac{2}{7}) = 3\frac{2}{7}$

Invers Penjumlahan ↗

2. Invers Perkalian -

a)  $\frac{2}{3} \times \square = 1 \Rightarrow \square = \frac{3}{2}$

b)  $\frac{5}{3} \times \square = 1 \Rightarrow \square = \frac{3}{5}$

c)  $(-\frac{5}{7}) \times \square = 1 \Rightarrow \square = (-\frac{7}{5})$  Tanda mengikuti

d)  $(-\frac{5}{9}) \times \square = 1$

$\Leftrightarrow \frac{(-5)}{9} \times \square = 1 \Rightarrow \square = \frac{9}{(-5)} = -\frac{9}{5}$

3. Selidiki nilainya sama atau berbeda

a)  $\left[ \frac{2}{3} + \left( \frac{5}{6} + \frac{7}{9} \right), \left( \frac{2}{3} + \frac{5}{6} \right) + \frac{7}{9} \right]$   
 $= \left[ \frac{2}{3} + \left( \frac{5 \times 3}{6 \times 3} + \frac{7 \times 2}{9 \times 2} \right), \left( \frac{2 \times 2}{3 \times 2} + \frac{5}{6} \right) + \frac{7}{9} \right]$   
 $= \left[ \frac{2}{3} + \frac{29}{18}, \frac{9}{6} + \frac{7}{9} \right]$   
 $= \left[ \frac{2 \times 6}{3 \times 6} + \frac{29}{18}, \frac{9 \times 3}{6 \times 3} + \frac{7 \times 2}{9 \times 2} \right]$   
 $= \left[ \frac{41}{18}, \frac{41}{18} \right] \rightarrow \text{sama}$

b)  $\left[ \frac{2}{3} - \left( \frac{5}{6} - \frac{7}{9} \right), \left( \frac{2}{3} - \frac{5}{6} \right) - \frac{7}{9} \right]$  angka nya sama.  
 $= \left[ \frac{2}{3} - \frac{1}{10}, -\frac{1}{6} - \frac{7}{9} \right]$   
 $= \left[ \frac{11}{18}, -\left( \frac{3}{18} + \frac{14}{18} \right) \right] = \left[ \frac{11}{18}, -\frac{17}{18} \right]$

↓  
Tidak sama  
(Berbeda)

3. c)  $\left[ \frac{2}{3} \times \left( \frac{5}{6} \times \frac{7}{9} \right), \left( \frac{2}{3} \times \frac{5}{6} \right) \times \frac{7}{9} \right]$   
 $= \left[ \frac{2}{3} \times \frac{5 \times 7}{6 \times 9}, \frac{2 \times 5}{3 \times 6} \times \frac{7}{9} \right]$   
 $= \left[ \frac{2 \times 5 \times 7}{3 \times 6 \times 9}, \frac{2 \times 5 \times 7}{3 \times 6 \times 9} \right] \rightarrow \text{Sama.}$

d)  $\left[ \frac{2}{3} : \left( \frac{5}{6} : \frac{7}{9} \right), \left( \frac{2}{3} : \frac{5}{6} \right) : \frac{7}{9} \right]$   
 $= \left[ \frac{2}{3} : \left( \frac{5}{6} \times \frac{9}{7} \right), \left( \frac{2}{3} \times \frac{6}{5} \right) : \frac{7}{9} \right]$   
 $= \left[ \frac{2}{3} : \frac{5 \times 9}{6 \times 7}, \frac{2 \times 6}{3 \times 5} : \frac{7}{9} \right]$   
 $= \left[ \frac{2}{3} \times \frac{6 \times 7}{5 \times 9}, \frac{2 \times 6}{3 \times 5} \times \frac{9}{7} \right]$   
 $= \left[ \frac{2 \times 6 \times 7}{3 \times 5 \times 9}, \frac{2 \times 6 \times 9}{3 \times 5 \times 7} \right]$   
 $= \left[ \frac{(2 \times 6 \times 7) \times 7}{(3 \times 5 \times 9) \times 7}, \frac{(2 \times 6 \times 9) \times 9}{(3 \times 5 \times 7) \times 9} \right]$   
 $= \left[ \frac{12 \times 49}{3 \times 5 \times 7 \times 9}, \frac{12 \times 81}{3 \times 5 \times 7 \times 9} \right]$

↓  
Berbeda.

4. a)  $\left[ 5\frac{2}{3} + \left( 3\frac{1}{5} + 7\frac{2}{5} \right), \left( 5\frac{2}{3} + 3\frac{1}{5} \right) + 7\frac{2}{5} \right]$   
 $= \left[ 5\frac{2}{3} + \left( 10 + \frac{3}{5} \right), \right]$   
 $\left( 8 + \frac{2 \times 5}{3 \times 5} + \frac{1 \times 3}{5 \times 3} \right) + 7\frac{2}{5}$   
 $= \left[ 5\frac{2}{3} + 10 + \frac{3}{5}, 8 + \frac{13}{15} + 7\frac{2}{5} \right]$   
 $= \left[ 15 + \frac{2 \times 5}{3 \times 5} + \frac{13 \times 3}{5 \times 3}, 15 + \frac{13}{15} + \frac{2 \times 3}{5 \times 3} \right]$   
 $= \left[ 15 + \frac{19}{15}, 15 + \frac{19}{15} \right] \rightarrow \text{sama.}$

$$\begin{aligned}
 4.b). & \left[ 5\frac{2}{3} - \left( 3\frac{1}{5} - 7\frac{2}{5} \right), \left( 5\frac{2}{3} - 3\frac{1}{5} \right) - 7\frac{2}{5} \right] \\
 & = \left[ 5\frac{2}{3} - \left( -4 - \frac{1}{5} \right), \left( 2 + \frac{2 \times 5}{3 \times 5} - \frac{1 \times 3}{5 \times 3} \right) - 7\frac{2}{5} \right] \\
 & = \left[ 5\frac{2}{3} + 4 + \frac{1}{5}, 2 + \frac{7}{15} - 7\frac{2}{5} \right] \\
 & = \left[ 9 + \frac{2 \times 5}{3 \times 5} + \frac{1 \times 3}{5 \times 3}, -5 + \frac{7}{15} - \frac{2 \times 3}{5 \times 3} \right] \\
 & = \left[ 9 + \frac{13}{15}, -5 + \frac{1}{15} \right] \rightarrow \text{Berbeda.}
 \end{aligned}$$

$$\begin{aligned}
 c). & \left[ 5\frac{2}{3} \times \left( 3\frac{1}{5} \times 7\frac{2}{5} \right), \left( 5\frac{2}{3} \times 3\frac{1}{5} \right) \times 7\frac{2}{5} \right] \\
 & = \left[ \frac{17}{3} \times \left( \frac{16}{5} \times \frac{37}{5} \right), \left( \frac{17}{3} \times \frac{16}{5} \right) \times \frac{37}{5} \right] \\
 & = \left[ \frac{17}{3} \times \frac{16 \times 37}{5 \times 5}, \frac{17 \times 16}{3 \times 5} \times \frac{37}{5} \right] \\
 & = \left[ \frac{17 \times 16 \times 37}{3 \times 5 \times 5}, \frac{17 \times 16 \times 37}{3 \times 5 \times 5} \right] \rightarrow \text{sama}
 \end{aligned}$$

$$\begin{aligned}
 d). & \left[ 5\frac{2}{3} : \left( 3\frac{1}{5} : 7\frac{2}{5} \right), \left( 5\frac{2}{3} : 3\frac{1}{5} \right) : 7\frac{2}{5} \right] \\
 & = \left[ \frac{17}{3} : \left( \frac{16}{5} : \frac{37}{5} \right), \left( \frac{17}{3} : \frac{16}{5} \right) : \frac{37}{5} \right] \\
 & = \left[ \frac{17}{3} : \left( \frac{16}{5} \times \frac{5}{37} \right), \left( \frac{17}{3} \times \frac{5}{16} \right) : \frac{37}{5} \right] \\
 & = \left[ \frac{17}{3} : \frac{16}{37}, \frac{17 \times 5}{3 \times 16} : \frac{37}{5} \right] \\
 & = \left[ \frac{17}{3} \times \frac{37}{16}, \frac{17 \times 5}{3 \times 16} \times \frac{5}{37} \right] \\
 & = \left[ \frac{17 \times 37}{3 \times 16}, \frac{17 \times 5^2}{3 \times 16 \times 37} \right] \\
 & = \left[ \frac{(17 \times 37) \times 37}{(3 \times 16) \times 37}, \frac{17 \times 5^2}{3 \times 16 \times 37} \right] \\
 & = \left[ \frac{17 \times 37^2}{3 \times 16 \times 37}, \frac{17 \times 5^2}{3 \times 16 \times 37} \right] \rightarrow \text{Berbeda}
 \end{aligned}$$

$$5.a). 1 \text{ Pakaian} = 3\frac{1}{2} \text{ meter} = \frac{7}{2} \text{ meter}$$

Kain ada 63 meter

$\Rightarrow$  Banyak pakaian yang ada

$$= 63 \text{ meter} \times \frac{1 \text{ Pakaian}}{\frac{7}{2} \text{ meter}}$$

$$= 63 \times 1 \text{ Pakaian} \times \frac{2}{7}$$

$$= \cancel{7} \times 9 \times \frac{2 \text{ Pakaian}}{\cancel{7}}$$

$$= 18 \text{ Pakaian}$$

$$b). 90 \text{ halaman} = \frac{3}{4} \text{ jam} = \frac{3}{4} \times 60 \text{ menit}$$

$$\Leftrightarrow 90 \text{ halaman} = \frac{3}{\cancel{4}} \times \cancel{4} \times 15 \text{ menit}$$

$$\Leftrightarrow 90 \text{ halaman} = 45 \text{ menit}$$

$$\Leftrightarrow 45 \times 2 \text{ halaman} = 45 \times 1 \text{ menit}$$

$$\Leftrightarrow 2 \text{ halaman} = 1 \text{ menit}$$

$$\Leftrightarrow 1 \text{ halaman} = \frac{1}{2} \text{ menit}$$

1.  $100\% = 1$

a).  $\frac{1}{10} \times 1 = \frac{1}{10} \times 100\% = \frac{1}{10} \times 10 \times 10\% = 10\%$

b).  $\frac{1}{7} \times 1 = \frac{1}{7} \times 100\% = \frac{100}{7}\% = 14\frac{2}{7}\%$

c).  $\frac{1}{8} \times 1 = \frac{1}{8} \times 100\% = \frac{100}{8}\% = 12\frac{1}{2}\%$   
 $= 12\frac{1}{2}\%$

d).  $\frac{1}{9} \times 1 = \frac{1}{9} \times 100\% = \frac{100}{9}\% = 9\frac{1}{9}\%$

2. a)  $12\frac{1}{2}\%$  dari Rp 8.000,00  
 $= 12\frac{1}{2}\% \times \text{Rp } 8.000 \leftarrow \text{1.c.}$   
 $= \frac{1}{8} \times \text{Rp } 8.000 = \text{Rp } 1.000,00$

b).  $25\%$  dari 10.000  
 $= \frac{25}{100} \times 10.000 = \text{Rp } 2.500,00$

c).  $33\frac{1}{3}\%$  dari 15.000  
 $= 33\frac{1}{3}\% \times \text{Rp } 15.000,00$   
 $= \frac{100}{3}\% \times \text{Rp } 15.000,00$   
 $= 100\% \times \text{Rp } 5.000,00 = \text{Rp } 5.000,00$

d).  $16\frac{2}{3}\%$  dari Rp 30.000,00.  
 $= 16\frac{2}{3}\% \times 30.000$   
 $= \frac{50}{3} \times \frac{1}{100} \times 30.000 = \text{Rp } 5.000,00.$

3. a).  $\frac{1}{3}$  dari Rp 3.000,00  $= \frac{1}{3} \times 3.000$   
 $= \text{Rp } 1.000,00$

b).  $\frac{1}{4}$  dari Rp 4.500,00  
 $= \frac{1}{4} \times 4.500 = \text{Rp } 1.125,00.$

3. c).  $\frac{15}{100}$  bagian dari Rp 3.000,00

$= \frac{15}{100} \times 3.000 = \text{Rp } 450,00$

d).  $\frac{23}{100}$  bagian dari Rp 6.000,00  
 $= \frac{23}{100} \times 6.000 = \text{Rp } 1.380,00$

4. a).  $12\frac{1}{2}\% \equiv \text{Rp } 500,00$   $12\frac{1}{2}\% = \frac{1}{8} \text{ (1.c.)}$

$\Leftrightarrow \frac{1}{8} \equiv \text{Rp } 500,00$   $100\% = 1.$

$\Leftrightarrow 1 \equiv \text{Rp } 4.000,00$

$\Leftrightarrow 100\% \equiv \text{Rp } 4.000,00$

b).  $\frac{1}{3} \equiv \text{Rp } 1.250,00$

$\Leftrightarrow 1 \equiv \text{Rp } 1.250,00 \times 3.$

$\Leftrightarrow 1 \equiv \text{Rp } 3.750,00.$

c).  $\frac{2}{10} \equiv \text{Rp } 3.000,00$

$\frac{2}{10} \times \frac{10}{2} \equiv \text{Rp } 3.000,00 \times \frac{10}{2}$   
 $1 \equiv \text{Rp } 15.000,00.$

d).  $\frac{35}{100} \equiv \text{Rp } 7.000,00.$

$1 \equiv \text{Rp } 7.000,00 \times \frac{100}{35} = \text{Rp } 20.000,00$

5. a).  $\frac{1}{4}$  bagian = Rp 1.250,00 dan diketahui  $(\frac{3}{4} = \frac{7}{4})$

$\Rightarrow \frac{1}{4}$  bagian  $\times 7 = \text{Rp } 1.250,00 \times 7.$

$\Leftrightarrow \frac{7}{4}$  bagian = Rp 8.750,00

$\Leftrightarrow 1\frac{3}{4}$  bagian = Rp 8.750,00

b).  $\frac{35}{100}$  bagian = Rp 7.000,00 dan  $1\frac{1}{4} = \frac{5}{4}$

$\Leftrightarrow 1$  bagian = Rp 20.000,00 (4.d).

$\Leftrightarrow \frac{5}{4} \times 1$  bagian  $= \frac{5}{4} \times \text{Rp } 20.000,00$

$\Leftrightarrow 1\frac{1}{4}$  bagian = Rp 25.000,00

$$1.a). 0,17 + 0,48 = \frac{17}{100} + \frac{48}{100} = \frac{65}{100} = 0,65.$$

$$b). 0,456 + 0,627 = \frac{456}{1000} + \frac{627}{1000} = \frac{1083}{1000} = 1,083$$

$$c). 6,43$$

$$\begin{array}{r} 7,89 + \\ \hline 14,32 \end{array} \Rightarrow 6,43 + 7,89 = 14,32$$

$$d). 0,35$$

$$\begin{array}{r} 45,29 + \\ \hline 53,64 \end{array} \Rightarrow 0,35 + 45,29 = 53,64$$

$$2.a). 0,67 - 0,49 = \frac{67}{100} - \frac{49}{100} = \frac{18}{100} = 0,18$$

$$b). 4,27 - 6,03 = \frac{427}{100} - \frac{603}{100} = - \left[ \frac{603}{100} - \frac{427}{100} \right]$$

$$= - \left[ \frac{176}{100} \right] = -1,76$$

$$c). 60,600$$

$$\begin{array}{r} 0,034 - \\ \hline 59,966 \end{array} \Rightarrow 60 - 0,034 = 59,966$$

$$d). 70,0000$$

$$\begin{array}{r} 0,0067 - \\ \hline 69,9933 \end{array} \Rightarrow 70 - 0,0067 = 69,9933$$

3. Panjang kain yang dibutuhkan

$$= 1,75 \text{ m}; 1,60 \text{ m}; 1,90 \text{ m}.$$

$\Rightarrow$  Total kain yang diperlukan

$$= 1,75 + 1,6 + 1,9 = \frac{175}{100} + \frac{160}{100} + \frac{190}{100}$$

$$= \frac{525}{100} = 5,25$$

• Tinggi Amir 6 bulan yang lalu = 142,53 cm

Tinggi Amir sekarang = 143,27 cm.

$$\Rightarrow \text{Perbedaan tinggi} = 143,27 - 142,53$$

$$= 0,74 \text{ cm}$$

5. Keliling segitiga ABC

= Jumlah sisi-sisi segitiga ABC

$$= AB + BC + CA$$

$$= 2,6 + 2,3 + 1,6$$

$$= 6,5 \text{ cm}$$

$$a). 0,001 \times 10 = \frac{1}{1000} \times 10 = 0,01$$

$$b). 56,075 \times 100 = \frac{56,075}{1.000} \times 100 = 5,607,5$$

$$c). -2,0001 \times 10 = \frac{-20.001}{10.000} \times 10 = -20,001$$

$$d). -0,0002 \times 10.000 = \frac{-2}{10.000} \times 10.000 = -2$$

$$2-a). -2,0001 : 10 = \frac{-20.001}{10.000} \times \frac{1}{10} = \frac{-20.001}{100.000} \\ = -0,20001$$

$$b). 56,075 : 100 = \frac{56.075}{1.000} \times \frac{1}{100} = \frac{56.075}{100.000} \\ = 0,56075$$

$$c). 0,002 : 1.000 = \frac{2}{1.000} \times \frac{1}{1.000} = \frac{2}{1.000.000} \\ = 0,000002$$

$$d). -3,0001 : 10.000 = -\frac{30.001}{10.000} \times \frac{1}{10.000} \\ = -\frac{30.001}{100.000.000} \\ = -0,00030001$$

$$3a). 23,4 \times 2 = \frac{234}{10} \times 2 = \frac{468}{10} = 46,8$$

$$b). 23,4 \times 3 = \frac{234}{10} \times 3 = \frac{702}{10} = 70,2$$

$$c). 23,4 \times 12 = \frac{234}{10} \times 12 = \frac{2808}{10} = 280,2$$

$$d). 23,4 \times 130 = \frac{234}{10} \times 130 = 3042$$

$$4.a). 54,32 \times 2 = \frac{5432}{100} \times 2 = \frac{10864}{100} = 108,64$$

$$b). 54,32 \times 12 = \frac{5.432}{100} \times 12 = \frac{65184}{100} = 651,84$$

$$c). 54,32 \times 102 = \frac{5432}{100} \times 102 = \frac{554064}{100} = 5540,64$$

$$4.d). 54,32 \times 1002 = \frac{5432}{100} \times 1002 \\ = \frac{5442.064}{100} \\ = 54428,64$$

$$5.a). \text{Harga 1 permen} = \text{Rp } 300,00$$

$$\text{Harga 10 Permen} = 10 \times \text{Rp } 300,00 \\ = \text{Rp } 3.000,00$$

$$b). \text{Harga 1 m kain} = \text{Rp } 34.500,00$$

$$\text{Harga 12,35 m kain} = 12,35 \times \text{Rp } 34.500,00 \\ = 1235 \times \text{Rp } 345,00 \\ = \text{Rp } 426.075,00$$



$$\begin{aligned} \text{1.a). } 0,345 \times 0,101 &= \frac{345}{1.000} \times \frac{101}{1.000} \\ &= \frac{34845}{1.000.000} \\ &= 0,034845 \end{aligned}$$

$$\begin{aligned} \text{b). } 5,02 \times 32,08 &= \begin{array}{r} 5,02 \\ \times 32,08 \\ \hline 4016 \\ 000 \\ 1004 \\ 1506 \\ \hline 161,0416 \end{array} \\ &= 161,0416 \end{aligned}$$

$$\begin{aligned} \text{c). } 0,00234 \times 0,0012 &= \frac{234}{100.000} \times \frac{12}{10.000} = \frac{2808}{1.000.000.000} \\ &= 0,000002808. \end{aligned}$$

$$\begin{aligned} \text{d). } 5700 \times 12,34 &= 5700 \times \frac{1234}{100} \\ &= 70.338. \end{aligned}$$

$$\begin{aligned} \text{2.a). } 12,01 \times 0,023 &= \begin{array}{r} 1201 \\ \times 23 \\ \hline 3603 \\ 2402 \\ \hline 27623 \end{array} \\ &= 0,27623 \end{aligned}$$

$$\begin{aligned} \text{b). } -62,34 \times 23,01 &= \begin{array}{r} 6234 \\ \times 2301 \\ \hline 6234 \\ 0000 \\ 18702 \\ 12468 \\ \hline 14344434 \end{array} \\ &= -14344434 \end{aligned}$$

$$\begin{aligned} \text{2.c). } -72,28 \times (-13,21) &= 72,28 \times 13,21 \\ &= 954,8188 \end{aligned}$$

$$\text{d). } 0,2 \times (-32,001) = -6,4002$$

$$\text{3.a). } 2.300 \times 0,0002 = 0,4600 = 0,46.$$

$$\begin{aligned} \text{b). } 30.000 \times 12,234 &= 30.000 \times \frac{12.234}{1000} \\ &= 367.020 \end{aligned}$$

$$\text{c). } 0,0001 \times 10.000 = \frac{1}{10.000} \times 10.000 = 1$$

$$\begin{aligned} \text{d). } 0,101 \times 23 &= \frac{101}{1.000} \times 23 = \frac{2323}{1.000} \\ &= 2,323. \end{aligned}$$

$$\begin{aligned} \text{4. Jumlah rata-rata hujan per tahun} &= 2,345 \text{ cm.} \end{aligned}$$

$$\begin{aligned} \Rightarrow \text{Jumlah rata-rata hujan dalam 12 tahun} &= 12 \times 2,345 \text{ cm} = 28,140 \text{ cm.} \\ &= 28,14 \text{ cm.} \end{aligned}$$

$$\text{5. Panjang 1 kain} = 3,23 \text{ m.}$$

$$\begin{aligned} \Rightarrow \text{Panjang 13 kain} &= 13 \times 3,23 \text{ m} \\ &= 41,99 \text{ m.} \end{aligned}$$

$$a). 6,15 : 5 = \frac{615}{100} : 5 = \frac{123 \times 5}{100} \times \frac{1}{5}$$

$$= 1,23$$

$$b). 6,15 : 0,005 = \frac{615}{100} : \frac{5}{1.000} = \frac{615}{100} \times \frac{1.000}{5}$$

$$= 1.230$$

$$c). 2,1 : 1,4 = \frac{21}{10} : \frac{14}{10} = \frac{21}{10} \times \frac{10}{14} = \frac{3 \times 7}{2 \times 2}$$

$$= \frac{3 \times 5}{2 \times 5} = \frac{15}{10} = 1,5$$

$$d). 54,4 : 0,17 = \frac{544}{10} : \frac{17}{100} = \frac{544}{10} \times \frac{100}{17}$$

$$= \frac{32 \times 17}{10} \times \frac{10 \times 10}{17} = 320$$

$$2. a). \text{Diketahui } 8 \times 125 = 1000$$

$$\Rightarrow \frac{3}{8} = \frac{3 \times 125}{8 \times 125} = \frac{375}{1000}$$

$$b). \text{Diketahui } 25 \times 4 = 100$$

$$\Rightarrow \frac{1}{25} = \frac{1 \times 40}{25 \times 40} = \frac{40}{1000} = 0,040$$

$$c). \frac{1}{32} = \frac{1 \times 1}{8 \times 4} = \frac{1}{8} \times \frac{1}{4} = \frac{125}{1000} \times \frac{25}{100}$$

$$= \frac{125 \times (20+5)}{100.000} = \frac{2500+625}{100.000}$$

$$= \frac{3.125}{100.000} = 0,03125 \approx 0,031$$

$$d). \frac{4}{7} = 0,571428 \approx 0,571$$

$$\begin{array}{r} 7 \overline{) 40} \\ \underline{35} \phantom{00} \\ 50 \phantom{00} \\ \underline{49} \phantom{00} \\ 10 \phantom{00} \\ \underline{7} \phantom{00} \\ 30 \phantom{00} \\ \underline{28} \phantom{00} \\ 20 \end{array} \quad \begin{array}{r} 20 \\ 14 \\ 60 \\ 56 \\ 4 \end{array}$$

$$3. \text{Persegi mempunyai keliling } 14,6 \text{ cm}$$

• Persegi memiliki 4 sisi yang sama panjang

$$\Rightarrow \text{keliling persegi} = 4 \times \text{panjang sisi}$$

$$\Rightarrow 4 \times \text{panjang sisi} = 14,6 \text{ cm.}$$

$$\bullet 14,6 : 4 = 3,65 \Rightarrow 14,6 = 4 \times 3,65.$$

$$\Rightarrow 4 \times \text{panjang sisi} = 4 \times 3,65 \text{ cm}$$

$$\text{panjang sisi} = 3,65 \text{ cm.}$$

$$4. \text{Pembagian } 21,7 \text{ kg beras menjadi } 7 \text{ bagian sama besar}$$

$$= \frac{21,7}{7} = \frac{21,7 \times 10}{7 \times 10} = \frac{217}{7 \times 10} = \frac{31}{10} = 3,1 \text{ kg}$$

$$5. \text{Beras sebanyak } 304,85 \text{ kg}$$

di bagikan ke tiap orang.

sehingga setiap orang mendapatkan 23,45 kg

$\Rightarrow$  Bentuk matematika.

$$304,85 \text{ kg} : \frac{a}{\uparrow} = 23,45 \text{ kg.}$$

Jumlah orang yang hadir = a.

$$\Rightarrow 23,45 \text{ kg} \times a = 304,85 \text{ kg}$$

$$\Rightarrow 304,85 \text{ kg} : 23,45 \text{ kg} = a.$$

$$\Rightarrow a = \frac{304,85 \text{ kg}}{23,45 \text{ kg}} = \frac{304,85 : 5}{23,45 : 5} = \frac{6.097}{469}$$

$$\bullet \text{Dik: } 469 \times 10 = 4690$$

$$469 \times 20 = 9380$$

$$9 \times 3 = 27$$

$$469 \times 13 = 6.097$$

$$\Rightarrow a = \frac{6.097}{469} = \frac{469 \times 13}{469} = 13 \text{ orang.}$$

$$1.a). 2,05 = \frac{205}{100} = \frac{41 \times \cancel{5}}{20 \times \cancel{5}} = \frac{41}{20}$$

$$b). 45,123 = \frac{45.123}{1.000}$$

$$c). 123,452 = \frac{123.452}{1.000} = \frac{123.452 : 4}{1000 : 4} = \frac{30.863}{250}$$

$$d). 567,234 = \frac{567.234}{1.000} = \frac{567.234 : 2}{1.000 : 2} = \frac{283.617}{500}$$

2. Arti bilangan 3 pada angka

$$a). 5,312 = 5.000 + \underbrace{300}_{\text{Ratusan}} + 10 + 2$$

$$b). 72,301 = 70 + 2 + \underbrace{\frac{3}{10}}_{\text{Persepuluhan}} + \frac{0}{100} + \frac{1}{1000}$$

$$c). 0,7532 = \frac{7}{10} + \frac{5}{100} + \underbrace{\frac{3}{1000}}_{\text{Perseribuhan}} + \frac{2}{10.000}$$

$$d). 0,0003 = \frac{3}{10.000} \leftarrow \text{Persepuluhribuan}$$

3. a). Dik:  $25 \times 4 = 100$

$$\Rightarrow \frac{1}{25} = \frac{1 \times 4}{25 \times 4} = \frac{4}{100} = 0,04$$

$$b). \frac{1}{40} = \frac{1 \times 25}{40 \times 25} = \frac{25}{1000} = 0,025$$

$$c). \frac{1}{3} = 0,33... = 0,\bar{3}$$

$$\begin{array}{r} 3 \overline{) 10} \leftarrow \\ \underline{9} \phantom{0} \\ 10 \phantom{0} \\ \underline{9} \phantom{0} \\ 1 \leftarrow \text{berulang} \end{array}$$

$$3.d). \text{Dik: } 8 \times 125 = 1.000$$

$$\Rightarrow \frac{1}{8} = \frac{1 \times 125}{8 \times 125} = \frac{125}{1000} = 0,125$$

$$4.a). \frac{4}{7} = 0,571428$$

$$\begin{array}{r} 7 \overline{) 40} \leftarrow \\ \underline{35} \phantom{0} \\ 50 \phantom{0} \\ \underline{49} \phantom{0} \\ 10 \phantom{0} \\ \underline{7} \phantom{0} \\ 30 \phantom{0} \\ \underline{28} \phantom{0} \\ 20 \phantom{0} \\ \underline{19} \phantom{0} \\ 60 \phantom{0} \\ \underline{56} \phantom{0} \\ 4 \leftarrow \text{berulang} \end{array}$$

$$b). \frac{3}{8} = \frac{3 \times 125}{8 \times 125} = \frac{375}{1000} = 0,375$$

$$c). \frac{5}{18} = 0,2\bar{7}$$

$$\begin{array}{r} 18 \overline{) 50} \\ \underline{36} \phantom{0} \\ 140 \phantom{0} \leftarrow \\ \underline{126} \phantom{0} \\ 14 \leftarrow \text{berulang} \end{array}$$

$$e). \frac{15}{6} = 2 \frac{3}{6} = 2 \frac{1}{2} = 2 \frac{1 \times 5}{2 \times 5} = 2 \frac{5}{10} = 2,5$$

$$5.a) 0,46 = \frac{46}{100} = \frac{46 : 2}{100 : 2} = \frac{23}{50}$$

$$b) 0,18 = \frac{18}{100} = \frac{18 : 2}{100 : 2} = \frac{9}{50}$$

$$c) 0,45 = \frac{45}{100} = \frac{45 : 5}{100 : 5} = \frac{9}{20}$$

$$d) 0,36 = \frac{36}{100} = \frac{36 : 4}{100 : 4} = \frac{9}{25}$$

a)  $0, \overline{0}3999$

$0, \underline{2}1$

↳ posisi pertama dengan bilangan berbeda.

•  $0 < 2 \Rightarrow$  yang lebih besar adalah  $0,21$

b)  $-\overline{5},9$

$-\underline{4},5$

•  $5 > 4$  dan  $-5,9$  dan  $-4,5$  adalah bilangan negatif

$\Rightarrow$  yang lebih besar adalah  $-4,5$

c)  $-0, \overline{2}34$

$-6, \underline{0}999$

• Karena  $0 < 2$  dan keduanya adalah bilangan negatif

$\Rightarrow$  yang lebih besar adalah  $-0,999$

d)  $5,345 = \overline{0}5,345$

$11,345 = \underline{1}1,345$

• Karena  $1 > 0$

$\Rightarrow$  yang lebih besar adalah  $11,345$

2.a) Diketahui  $0,30 \square 9 < 0,3019$

Karena angkanya serupa kecuali pada per seribuan maka nilai  $\square$  kotak yang mungkin lebih kecil dari 1 sehingga  $\square = 0$

b) Diketahui  $16,788 < 16,7 \square 8$

• Karena angkanya serupa kecuali pada per seratusan

$\Rightarrow 8 < \square \Rightarrow \square = 9$

3.a)  $[2,1; 3,2; 2,6]$

$= \left[ \frac{21}{10}, \frac{32}{10}, \frac{26}{10} \right]$

karena  $21 < 26 < 32$

$\Rightarrow$  susunan dari terkecil ke terbesar

$= 2,1; 2,6; 3,2$

b)  $[-0,01; -0,000999; -0,005]$

$= \left[ -\frac{1}{100}; -\frac{999}{1.000.000}; -\frac{5}{1000} \right]$

$= \left[ -\frac{10.000}{1.000.000}; -\frac{999}{1.000.000}; -\frac{5000}{1.000.000} \right]$

karena  $999 < 5000 < 10.000$

$\Rightarrow$  susunan dari terkecil ke terbesar

$= -0,01; -0,005; -0,000999$

4.a)  $0,345 = 0, \overline{3}450$

$0,346 = 0,34 \overline{6}0$

$\Rightarrow$  bilangan desimal antara.

$0,3450$  dan  $0,3460$  adalah

$0,3455$

b)  $0,01 = \frac{1}{100}$   
 $0,10 = \frac{10}{100} \rightarrow \frac{5}{100} = 0,005$

$\Rightarrow$  bilangan desimal di antara.

kedua bilangan tersebut adalah  $0,005$

5.a)  $-0,023 = -\frac{23}{1.000}$   
 $-0,034 = -\frac{34}{1.000} \rightarrow$  Diantaranga.  
 $-\frac{30}{1.000}$   
 $= -0,03$

b)  $-3,25 = -\frac{325}{100}$   
 $-3,30 = -\frac{330}{100} \rightarrow$  Diantaranga.  
 $-\frac{327}{100} = -3,27$

b).  $\overbrace{534}^3, 34 = 5,3434 \times 10^2 \approx 5,34 \times 10^2$

$$c). \quad 0.00671 = \frac{671}{100.000} = \frac{671}{100} \times \frac{1}{1.000}$$

$$= 6,71 \times 10^{-3}$$

$$d). 0,000581 = \frac{581}{1.000.000} = \frac{581}{100} \times \frac{1}{10.000}$$

$$= 5,81 \times 10^{-4}$$

b).  $8,35 \times 10^7 = 83.500.000$

$$c). 3,45 \times 10^{-5} = \frac{345}{100} \times \frac{1}{10.000.000}$$
$$= \frac{345}{10.000.000}$$
$$= 0,0000345$$

d)  $7,89 \times 10^{-7} = 0,\underbrace{0000000}_{7}789$

b). Massa satu molekul air kira-kira

$= 0, \underbrace{000000000000000000000000}_{5} \underbrace{000000}_{5} \underbrace{000000}_{5} \underbrace{000000}_{5} \underbrace{003}_{3}$

$\underbrace{\hspace{15em}}_{23}$

$$= 3 \times 10^{-23}$$

$$= 2,64 \times 10^8$$

b). Jumlah penduduk Jawa  $\rightarrow$  100 juta  
 $\downarrow$   
 misalkan x.

$$x > \underbrace{100.000.000}_8$$

$$x > 1 \times 10^8$$

$$\frac{304.000}{5} \text{ km} = 3,0 \times 10^5 \text{ km}.$$

d). Jarak bumi ke matahari adalah  
 $\underline{149.600.000 \text{ km}} = 1,49 \times 10^8 \text{ km}.$   
 8

Jarak =  $3,84 \times 10^5$  km.

Waktu: ... ?

Diketahui Waktu =  $\frac{\text{Jarak}}{\text{kecepatan}}$

$$\text{waktu} = \frac{3,84 \times 10^5 \text{ km}}{3 \times 10^3 \text{ km/jam}}$$

$$= \frac{3 \times 1,20 \times 10^2}{\cancel{3}} \text{ jam.}$$

$$= 1,20 \times 10^3 \text{ jam}$$

$$= \frac{120}{100} \times 100 \text{ jam}$$

$= 128 \text{ jam.}$