

Chapter 28

Concept check (8a)

2a Which of the following pairs of fractions are unit fractions?

a. $\frac{3}{14}, \frac{3}{16}$ ☒ b. $\frac{1}{12}, \frac{1}{24}$ ☒ c. $\frac{5}{19}, \frac{5}{21}$ ☒

d. $\frac{1}{17}, \frac{1}{19}$ ☒ e. $\frac{2}{61}, \frac{2}{34}$ ☒ f. $\frac{1}{38}, \frac{1}{45}$ ☒

g. $\frac{9}{16}, \frac{9}{14}$ ☒ h. $\frac{1}{15}, \frac{1}{25}$ ☒ i. $\frac{2}{31}, \frac{2}{24}$ ☒ j. $\frac{2}{9}, \frac{2}{9}$ ☒

2 Which of the following pairs of fractions are like fractions?

a. $\frac{7}{9}, \frac{4}{8}$ ☒ b. $\frac{6}{12}, \frac{11}{12}$ ☒ c. $\frac{9}{12}, \frac{2}{10}$ ☒

d. $\frac{1}{21}, \frac{2}{22}$ ☒ e. $\frac{2}{33}, \frac{1}{34}$ ☒ f. $\frac{11}{18}, \frac{11}{18}$ ☒

g. $\frac{1}{15}, \frac{1}{26}$ ☒ h. $\frac{21}{30}, \frac{11}{20}$ ☒ i. $\frac{15}{18}, \frac{15}{18}$ ☒ j. $\frac{2}{30}, \frac{5}{35}$ ☒

3 Which of the following pairs of fractions are

Like fractions?

a. $\frac{1}{16}, \frac{2}{23}$ ☒ b. $\frac{2}{12}, \frac{5}{15}$ ☒ c. $\frac{1}{10}, \frac{1}{80}$ ☒ d. $\frac{2}{12}, \frac{4}{12}$ ☒

e. $\frac{4}{50}, \frac{6}{20}$ ☒ f. $\frac{1}{16}, \frac{1}{15}$ ☒ g. $\frac{1}{18}, \frac{1}{25}$ ☒

h. $\frac{3}{12}, \frac{5}{21}$ ☒ i. $\frac{5}{25}, \frac{6}{35}$ ☒ j. $\frac{4}{60}, \frac{20}{60}$ ☒

4. Compare by putting the correct symbol (< or >).

a. $\frac{1}{20}$ ☒ $\frac{1}{42}$ b. $\frac{1}{63}$ ☒ $\frac{1}{49}$ c. $\frac{1}{24}$ ☒ $\frac{1}{24}$ d. $\frac{1}{33}$ ☒ $\frac{1}{22}$

e. $\frac{1}{15}$ ☒ $\frac{2}{16}$ f. $\frac{4}{20}$ ☒ $\frac{3}{30}$ g. $\frac{2}{22}$ ☒ $\frac{3}{33}$ h. $\frac{11}{101}$ ☒ $\frac{41}{101}$

5. Arrange each according order.

a) $\frac{1}{8}, \frac{1}{10}, \frac{1}{5}, \frac{1}{12}$ b) $\frac{4}{12}, \frac{2}{12}, \frac{9}{25}$

c) $\frac{1}{18}, \frac{1}{18}, \frac{1}{3}$ d) $\frac{7}{12}, \frac{5}{12}, \frac{1}{12}$

6. Arrange in ascending order.

a) $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{11}$ b) $\frac{1}{15}, \frac{11}{15}, \frac{2}{15}, \frac{18}{15}$

Ans: $\frac{1}{11}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}$

Ans: $\frac{2}{15}, \frac{11}{15}, \frac{18}{15}, \frac{18}{15}$

Concept check (8b)

1. Add by shading. One has been done for you.



$$\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$$



$$\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$$

2. Subtract by shading and crossing out.

One has been done for you.



$$\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$$

$$\frac{11}{12} - \frac{7}{12} = \frac{4}{12}$$



$$\frac{7}{8} - \frac{3}{8} = \frac{4}{8}$$

3. Add

$$a. \frac{5}{10} + \frac{3}{10} = \frac{5+3}{10} = \frac{8}{10}$$

$$b. \frac{51}{100} + \frac{42}{100} = \frac{51+42}{100} = \frac{93}{100}$$

$$c. \frac{1}{6} + \frac{4}{6} = \frac{1+4}{6} = \frac{5}{6}$$

$$d. \frac{8}{28} + \frac{11}{28} = \frac{8+11}{28} = \frac{19}{28}$$

$$e. \frac{1}{4} + \frac{1}{4} = \frac{1+1}{4} = \frac{2}{4}$$

$$f. \frac{13}{30} + \frac{12}{30} = \frac{13+12}{30} = \frac{25}{30}$$

$$g. \frac{21}{42} + \frac{6}{42} = \frac{21+6}{42} = \frac{27}{42}$$

$$h. \frac{19}{55} + \frac{21}{55} = \frac{19+21}{55} = \frac{40}{55}$$

4. Subtract

$$a) 12 - 9 = 12 - 9$$

$$16 - 16 = 0$$

$$b) 11 - 2 = 11 - 2$$

$$= 9$$

$$d) 21 - 18 = 21 - 18$$

$$= 3$$

$$g) 59 - 7 = 59 - 7$$

$$= 52$$

$$h) 75 - 16 = 75 - 16$$

$$= 59$$

Ans

Concept check

5. Solve the following word problems

a) Madhavi -

- in seed

fraction of book Madhavi reads = $\frac{1}{11}$

fraction of book left to be read = $\frac{10}{11}$

$$\frac{11-1}{11} = \frac{10}{11}$$

$$\Rightarrow \frac{10}{11}$$

b) In a -

- the fraction

fraction of book = $\frac{5}{20}$

fraction of book already read = $\frac{3}{20}$

$$= \frac{5-3}{20} = \frac{2}{20}$$

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

c) Making - - - - -

- prepared

fraction of eggs parties = $\frac{9}{15}$

fraction of pineapple parties = $\frac{3}{15}$

fraction of pineapple + eggs parties = $\frac{9+3}{15+15}$

fraction of button scotch parties = $\frac{12}{15}$

$$= \frac{15-12}{15} = \frac{3}{15} \text{ which is } \frac{1}{5}$$

d) Mavis - - - - -

- solving

fraction of parties of the fraction = $\frac{13}{14}$

fraction of parties of the solving = $\frac{13}{14}$

$$= \frac{13-5}{14} = \frac{8}{14} \text{ which is } \frac{4}{7}$$

19/11/19

Concept of Equal Fractions

1. Four circles of same size are divided equally into 8 parts. Colour the circles to represent

fraction of parts. Colour the circles to represent

fraction of parts. Colour the circles to represent

a.



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

b.



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

Unit fraction

not shown
 Answer fraction either
 then a unit fraction



$$\frac{2}{8}$$

Any improper fraction

2. Four squares of same size are divided equally into 16 parts. Colour the squares

to represent fractions as mentioned

in the box

b. b. a



Unit fraction



An improper fraction

3. Write the fraction represented by each of the points below both as an improper fraction and as a mixed number (with the boxed group as the whole).


$$\frac{5}{4}$$
 $\frac{03}{14}$

10

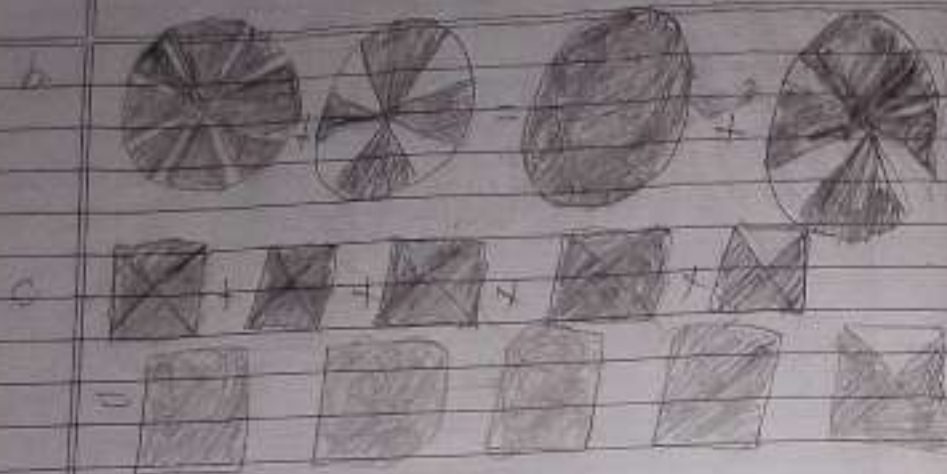
16/2

6

24

4. Identify proper fractions, improper fractions and mixed fractions and divide them.

$$\frac{3}{7}, \frac{12}{7}, \frac{15}{16}, \frac{16}{16}, \frac{3}{4}, \frac{1}{10}$$
$$\left(\frac{3}{2}\right) \cdot \left(\frac{4}{3}\right) = \frac{4}{2} = 2$$



2. Convert the following improper fraction into mixed fraction:

$$\begin{array}{r} 4 \overline{) 27} 6 \\ \underline{24} \\ 3 \end{array}$$

a. $\frac{21}{5} = 4 \frac{1}{5}$ b. $\frac{27}{4} = 6 \frac{3}{4}$ c. $\frac{15}{4} = 3 \frac{3}{4}$

d. $\frac{19}{5} = 3 \frac{4}{5}$ e. $\frac{47}{10} = 4 \frac{7}{10}$ f. $\frac{31}{6} = 5 \frac{1}{6}$

g. $\frac{56}{11} = 5 \frac{1}{11}$ h. $\frac{45}{8} = 5 \frac{5}{8}$

3. Convert the following mixed number into improper fraction:

a. $3 \frac{2}{5} = \frac{17}{5}$ b. $10 \frac{1}{6} = \frac{61}{6}$ c. $1 \frac{4}{5} = \frac{9}{5}$

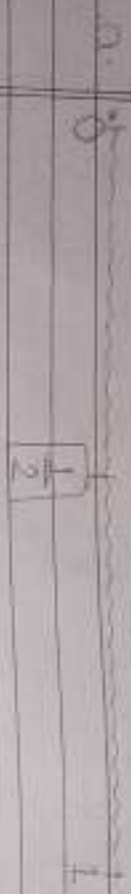
d. $14 \frac{1}{3} = \frac{43}{3}$ e. $11 \frac{3}{4} = \frac{47}{4}$ f. $2 \frac{3}{4} = \frac{11}{4}$

~~$\frac{1}{4} = \frac{25}{1}$~~

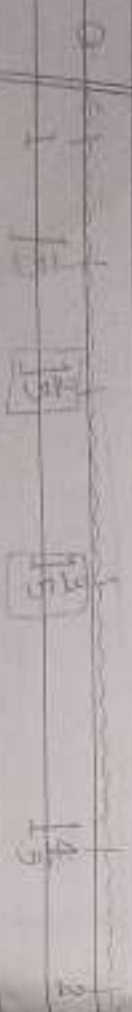
~~$\frac{21}{13}$~~

Concept check (2.1)

Q1. Look at the number lines below and write missing fractions.



Q2. Look at the number lines below and write the missing fractions.



Q3. Write any four equivalent fractions for each of the following fractions.

a. $\frac{1}{5}$ b. $\frac{1}{6}$

$\frac{1}{5} \times \frac{2}{2} = \frac{2}{10}$ $\frac{1}{6} \times \frac{2}{2} = \frac{2}{12}$

$\frac{1}{5} \times \frac{3}{3} = \frac{3}{15}$ $\frac{1}{6} \times \frac{3}{3} = \frac{3}{18}$

$\frac{1}{5} \times \frac{4}{4} = \frac{4}{20}$ $\frac{1}{6} \times \frac{4}{4} = \frac{4}{24}$

$\frac{1}{5} \times \frac{5}{5} = \frac{5}{25}$ $\frac{1}{6} \times \frac{5}{5} = \frac{5}{30}$

Q4. Write the fractions represented by the shapes given below. Take 2 the pie which are equivalent fractions.

a) $\frac{4}{8}, \frac{2}{4}$

Yes

b) $\frac{1}{2}, \frac{1}{3}$

No

c) $\frac{8}{16}, \frac{2}{4}$

No

d) $\frac{1}{2}, \frac{3}{6}$

No

e) $\frac{3}{6}, \frac{2}{3}$

No

f) $\frac{1}{3}, \frac{3}{4}$

No

~~Print~~
23/8/19

I. Sub

a) 252

b) 2400

c) 1000

d) 920

II. Write

digit

a) 2, 5

= 852

= 125

III. Con

a) 322

b) 985

IV. Pow