

## 6. Fraction Calculations Practice Test

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- In lowest terms, determine  $\frac{20}{27} \div \frac{5}{9}$ .
  - $\frac{2}{3}$
  - $\frac{3}{4}$
  - $1\frac{1}{3}$
  - $1\frac{1}{2}$
- Determine  $\frac{99}{100} \div 1\frac{9}{10} \div \frac{2}{5}$ .
  - $\frac{1881}{2500}$
  - $\frac{76}{99}$
  - $1\frac{23}{76}$
  - $4\frac{281}{400}$
- The elevation of Dawson Creek is about 665 m, which is about  $1\frac{3}{4}$  of the elevation of Kamloops. What is the elevation of Kamloops in metres?
  - 380 m
  - 498 m
  - 660 m
  - 764 m
- A snapshot is taken at a busy intersection and analysed. It shows that 16 people are in personal vehicles, 56 people are in buses, and 24 are walking. What fraction (in lowest terms) of the people are walking?
  - $\frac{1}{8}$
  - $\frac{1}{4}$
  - $\frac{24}{72}$
  - $\frac{24}{56}$
- A snapshot is taken at a busy intersection and analysed. It shows that 16 people are in personal vehicles, 56 people are in buses, and 24 are walking. What fraction (in lowest terms) of the people are in personal vehicles?
  - $\frac{1}{8}$
  - $\frac{1}{6}$
  - $\frac{16}{80}$
  - $\frac{16}{56}$
- Barry's father's truck has a fuel economy rating of 9.8 L per 100 km. Sonia's father's car has a fuel economy rating that is  $\frac{6}{7}$  that of the truck. What is the fuel rating for the car?
  - 1.4 L per 100 km
  - 6.4 L per 100 km
  - 8.4 L per 100 km
  - 11.4 L per 100 km

7. A recipe calls for  $2\frac{1}{2}$  cups of chocolate chips to make a batch of five dozen cookies. On average, how many cups of chocolate chips would be in each cookie?
- a.  $\frac{1}{24}$                       b.  $\frac{5}{24}$                       c.  $\frac{8}{30}$                       d.  $\frac{5}{12}$
8. A full set of teeth for an adult consists of 32 teeth. Brian and Sampson collided while skiing and both were injured. After the skiing accident Brian found that he had lost  $\frac{3}{16}$  of his adult teeth. Sampson found that he had lost  $\frac{1}{3}$  as many teeth as Brian had. Determine how many teeth Sampson lost.
- a. 2                              b. 3                              c. 4                              d. 6
9. Don's best ski time is 76 s. This time is  $1\frac{1}{3}$  times the best time scored by Andrew. What is Andrew's best race time?
- a. 38 s                              b. 57 s                              c. 84 s                              d. 96 s
10. There are 12 sections of an orange when it is whole, but the orange is  $\frac{3}{4}$  eaten. Of the remaining amount,  $\frac{2}{3}$  is eaten by Galit. How many sections does Galit eat?
- a. 1 section                      b. 2 sections                      c. 3 sections                      d. 4 sections

**Completion**

*Complete each statement.*

*Write your answer in the space provided.*

11.  $\frac{17}{25}$  of \$275 = \_\_\_\_\_

12.  $35 \times \frac{3}{7} =$  \_\_\_\_\_

13. You multiply a fraction by its \_\_\_\_\_ to get a product of 1.

14.  $\frac{1}{4}$  is the \_\_\_\_\_ of  $\frac{1}{2} \times \frac{1}{2}$ .

15. When using the order of operations, you do \_\_\_\_\_ first.

16.  $3\frac{1}{2} \div 2\frac{3}{8} =$  \_\_\_\_\_

17.  $35 \div \frac{3}{7} =$  \_\_\_\_\_

### Matching

*Match the correct term to each of the following examples. Terms may be used more than once or not at all.*

- |                      |                    |
|----------------------|--------------------|
| a. denominator       | d. numerator       |
| b. improper fraction | e. proper fraction |
| c. mixed number      | f. reciprocal      |

18.  $\frac{9}{4}$ ,  $\frac{6}{5}$ ,  $\frac{3}{2}$ , and  $\frac{4}{3}$  are each an example of this

*Match the correct term to each of the following descriptions or examples. Terms may be used more than once or not at all.*

- |                         |                 |
|-------------------------|-----------------|
| a. commutative property | e. numerators   |
| b. fraction             | f. quotient     |
| c. less than            | g. reciprocal   |
| d. mixed number         | h. whole number |

19. a fraction with a denominator of 1 is a \_\_\_\_\_

20. the product of two proper fractions is \_\_\_\_\_ either of the fractions

### Short Answer

Write your answer in the space provided.

21. Calculate. Express your answer in lowest terms.

a) $3 \times \frac{3}{11} =$	c) $5 \times \frac{2}{15} =$
b) $4 \times \frac{3}{16} =$	d) $6 \times \frac{2}{5} =$

22. Multiply. Express your answer in lowest terms.

a) $4 \times \frac{1}{4} =$	b) $7 \times \frac{3}{7} =$	c) $2 \times \frac{5}{2} =$
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23. Calculate.

a)  $\frac{5}{7} \times 28$       b)  $\frac{2}{3} \times 12$       c)  $\frac{1}{2} \times 38$       d)  $\frac{3}{5} \times 45$

24. Multiply. Express your answer in lowest terms.

a)  $8 \times \frac{3}{32}$       b)  $15 \times \frac{2}{45}$       c)  $12 \times \frac{5}{72}$       d)  $2 \times \frac{5}{14}$

25. Calculate. Express your answer in lowest terms.

a)  $\frac{1}{4} \times \frac{2}{9}$       b)  $\frac{5}{7} \times \frac{2}{5}$       c)  $\frac{3}{8} \times \frac{4}{9}$       d)  $\frac{9}{10} \times \frac{5}{6}$

26. Calculate.

a)  $\frac{17}{20}$  of \$80.00      b)  $\frac{19}{50}$  of \$150.00      c)  $\frac{13}{18}$  of \$72.00      d)  $\frac{12}{25}$  of \$175.00

27. Divide.

a)  $15 \div \frac{5}{9}$

b)  $18 \div \frac{9}{16}$

c)  $12 \div \frac{6}{25}$

d)  $20 \div \frac{10}{21}$

28. Calculate.

a)  $\frac{6}{11} \div 3$

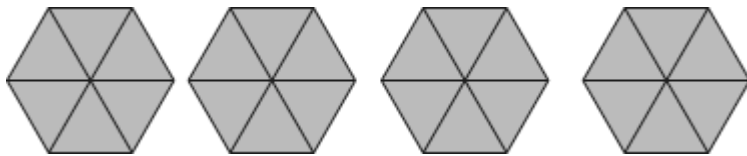
b)  $\frac{15}{16} \div 5$

c)  $\frac{18}{35} \div 6$

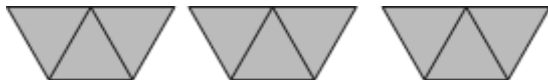
d)  $\frac{12}{15} \div 4$

**Problem**

29. Suppose 4 hexagons = 1 whole.



a) What fraction of the whole do nine triangles represent?



b) What fraction of the whole do two trapezoids represent?



30. In a class of 30 students,  $\frac{2}{3}$  have a computer in their home. Of the students who have a computer in their home,  $\frac{4}{5}$  have high speed Internet access. Of the students with high speed Internet access,  $\frac{1}{4}$  are using a Mac computer. What fraction of the class uses a Mac computer for high speed Internet access? How many students is this?

## 6. Fraction Calculations Practice Test Answer Section

### MULTIPLE CHOICE

1. C
2. C
3. A
4. B
5. B
6. C
7. A
8. A
9. B
10. B

### COMPLETION

11.  $\frac{17}{25} \times \$275 = \$187$

12.  $35 \times \frac{3}{7} = 15$

13. reciprocal

14. product

15. brackets

16.  $3\frac{1}{2} \div 2\frac{3}{8}$   
 $= \frac{7}{2} \div \frac{19}{8}$   
 $= \frac{7}{2} \times \frac{8}{19}$   
 $= \frac{28}{19}$   
 $= 1\frac{9}{19}$

17.  $35 \div \frac{3}{7} = 35 \times \frac{7}{3}$   
 $= \frac{245}{3}$   
 $= 81.\bar{6}$

## MATCHING

18. B  
19. H  
20. C

## SHORT ANSWER

21. a)  $\frac{9}{11}$   
b)  $\frac{3}{4}$   
c)  $\frac{2}{3}$   
d)  $2\frac{2}{5}$
22. a) 1  
b) 3  
c) 5
23. a) 20  
b) 8  
c) 19  
d) 27
24. a)  $\frac{24}{32} = \frac{3}{4}$       b)  $\frac{30}{45} = \frac{2}{3}$       c)  $\frac{60}{72} = \frac{5}{6}$       d)  $\frac{10}{14} = \frac{5}{7}$
25. a)  $\frac{2}{36} = \frac{1}{18}$   
b)  $\frac{10}{35} = \frac{2}{7}$   
c)  $\frac{12}{72} = \frac{1}{6}$   
d)  $\frac{45}{60} = \frac{3}{4}$

26. a) \$68.00  
b) \$57.00  
c) \$52.00  
d) \$84.00
27. a) 27  
b) 32  
c) 50  
d) 42
28. a)  $\frac{2}{11}$   
b)  $\frac{3}{16}$   
c)  $\frac{3}{35}$   
d)  $\frac{3}{15} = \frac{1}{5}$

**PROBLEM**

29. a) There are 24 triangles in the 4 hexagons.  
 $\frac{9}{24} = \frac{3}{8}$   
Nine triangles represent  $\frac{3}{8}$  of the whole.
- b)  $\frac{6}{24} = \frac{1}{4}$   
Two trapezoids (6 triangles) represent  $\frac{1}{4}$  of the whole.



$$\begin{aligned} 30. \quad & \frac{2}{3} \times \frac{4}{5} \times \frac{1}{4} \\ & = \frac{8}{60} \\ & = \frac{2}{15} \end{aligned}$$

In the class of 30 students,  $\frac{2}{15}$  use a Mac computer for high speed Internet access.

$$30 \times \frac{2}{15} = 4$$

Four students from the class use a Mac computer for high speed Internet access.