Foundational Numeracy

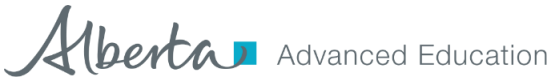
Module 5: Fractions

Pre-Tests, Final Module Quiz, and Answer Key

V1.18 – 27/June/18

Developed for Alberta's Community Adult Learning Program

Funded by Alberta Advanced Education



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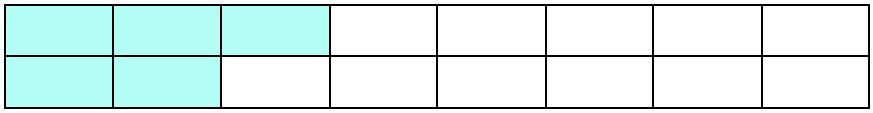
Unit 1 Pre-Test

Name: _____

What do you already know about the meaning of fractions? Try the following questions without looking in your Learner Guide or asking for help. You may be surprised at the number of questions you can answer correctly.

1. Write the fraction that represents the shaded part of the diagram. _____



2. A student spends 7 hours sleeping and 4 hours in class each 24-hour day. What part of the day is spent doing other things?

3. Reduce these fractions to lowest terms:

   a. $\frac{16}{18} =$

   b. $\frac{24}{32} =$

4. Are these fractions equivalent? Yes or no? _____

   $\frac{2}{3}$ and $\frac{4}{5}$

5. Write these fractions in higher terms.

   a. $\frac{4}{5} = \frac{\quad}{20}$

   b. $\frac{3}{2} = \frac{\quad}{4}$

6. $\frac{11}{3}$ changed to a mixed number is _____.

7. $4\frac{1}{5}$ written as an improper fraction is _____.

8. Estimate the answers by rounding off to the nearest whole number.

   a. $7\frac{1}{5} + 2\frac{7}{8} \cong$

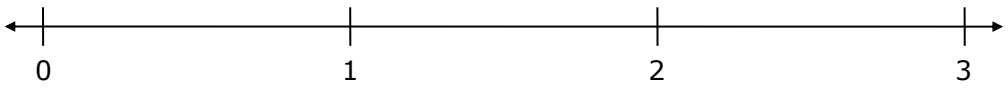
   b. $4\frac{1}{8} \times 2\frac{1}{3} \times 3\frac{11}{12} \cong$

   c. $13\frac{1}{6} - 9\frac{7}{8} \cong$

   d. $15\frac{3}{4} \div 7\frac{1}{2} \cong$

9. Indicate the approximate locations of these fractions on the number line below.

   $\frac{3}{5}, \frac{6}{5}, 2\frac{4}{5}$



Unit 2 Pre-Test

Name: _____

Solve the following equations. Write the answers in lowest terms.

1. $3\frac{4}{5} + 5\frac{2}{5}$

2. $6\frac{3}{8} - 2\frac{5}{8}$

3. $12\frac{3}{8} + 14\frac{5}{6}$

4. $15 - 6\frac{3}{4}$

5. $4\frac{7}{9} - 3$

6. $7\frac{1}{2} + 4\frac{1}{5} + 6\frac{3}{4}$

7. $8\frac{1}{7} - 4\frac{2}{3}$

8. $12 + 4\frac{7}{8} + 6\frac{1}{2}$

9. A student worked 3⅓ hours, 2¾ hours, and 4 hours over a 3-day period. How many hours did she work all together?

10. The student in Question 9 above wants to work an average of 12 hours per week. How many more hours must she work to achieve her goal of 12 hours?

Unit 3 Pre-Test

Name: _____

1. Write the reciprocal of the following fractions.

   a. $\frac{3}{8}$

   b. $5\frac{4}{9}$

2. Solve the following equations. Write the answers in lowest terms.

   a. $\frac{3}{8} \times \frac{4}{9}$

   b. $15 \times 6\frac{4}{5}$

   c. $4\frac{8}{9} \times 3\frac{3}{4}$

   d. $\frac{7}{8} \div \frac{14}{24}$

   e. $5 \div 2\frac{1}{2}$

   f. $2\frac{1}{7} \div 2\frac{2}{14}$

3. How many pieces of wood measuring 2½ feet long can be cut from a 15-foot board?

4. A truck delivers 5¼ tonnes of gravel per load. How many tonnes will the truck have delivered after 20 loads?

Module 5: Final Module Quiz

Name: _____

1. Solve the following equations. (1 mark each)

a. $\frac{2}{3} + \frac{7}{8}$

b. $2\frac{7}{10} + 1\frac{5}{6}$

c. $4\frac{5}{12} - 3\frac{5}{9}$

d. $6 - 4\frac{5}{6}$

e. $8\frac{3}{7} + 5\frac{2}{3}$

f. $36\frac{3}{4} - 14$

g. $6\frac{2}{3} \times \frac{3}{8}$

h. $1\frac{5}{6} \times 1\frac{5}{11}$

i. $3\frac{1}{8} \times 2\frac{2}{5}$

j. $\frac{3}{5} \div \frac{9}{10}$

k. $15 \div \frac{9}{10}$

l. $6\frac{3}{4} \div 4\frac{1}{2}$

2. Circle the largest fraction in each question. (1 mark each)

   a. $\frac{2}{3}, \frac{7}{12}, \frac{1}{4}$ b. $\frac{3}{10}, \frac{2}{5}, \frac{7}{20}$

3. Arrange the fractions in descending (largest to smallest) order. (1 mark each)

   a. $\frac{5}{12}, \frac{3}{4}, \frac{5}{6}, \frac{3}{8}$ b. $2\frac{2}{3}, 2\frac{5}{7}, 2\frac{5}{6}$

4. Place these fractions on the number line: $\frac{7}{5}, 3\frac{2}{3}, \frac{4}{7}$ (3 marks)

5. Paul bought a cellphone worth $260.00. He paid ⅕ in cash and the rest in 4 equal monthly installments. How much did he pay each month? (2 marks)

6. A recipe calls for 1⅔ cups of sugar, 3½ cups of flour, and ¾ cup of milk. If the cook has to make 1½ times the recipe, how much of each ingredient is needed? (2 marks)

7. Rona needs 3½ metres of felt, 2¾ metres of canvas, and $7\frac{2}{5}$ metres of plastic wrap. How much material does she need all together? (2 marks)

8. Dave drove his car 45¾ laps before a tire blew. Jeff's car went 62½ laps before a tire blew. How many more laps did Jeff drive? (2 marks)

9. An average video is about 3¾ minutes long. How many videos can be played in 1 hour on an all-music video show? (2 marks)

10. At a concert, an additional song is performed if the audience claps enough. To clap enough, you must clap 2½ times per second. How many claps are there in 3 minutes? (2 marks)

Answer Key

Unit 1 Pre-Test

1. $\frac{5}{16}$

2. $\frac{13}{24}$ of the day is spent doing other things.

3. a. $\frac{8}{9}$ b. $\frac{3}{4}$

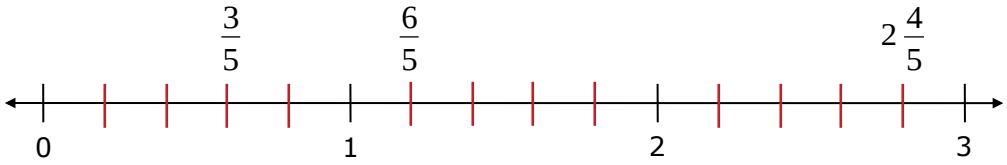
4. No

5. a. 16 b. 6

6. $3\frac{2}{3}$

7. $\frac{21}{5}$

8. a. 10 b. 32 c. 3 d. 8

9. 

Unit 2 Pre-Test

1. $9\frac{1}{5}$ 2. $3\frac{3}{4}$ 3. $27\frac{5}{24}$ 4. $8\frac{1}{4}$

5. $1\frac{7}{9}$ 6. $18\frac{9}{20}$ 7. $3\frac{10}{21}$ 8. $23\frac{3}{8}$

9. She worked $10\frac{1}{12}$ hours.

10. She needs to work $1\frac{11}{12}$ more hours.

Unit 3 Pre-Test

1. $\frac{8}{3}$ 2. $\frac{9}{49}$ 3. $\frac{1}{6}$ 4. 102

5. $18\frac{1}{3}$ 6. $1\frac{1}{2}$ 7. 2 8. 1

9. 6 pieces can be cut from the board.

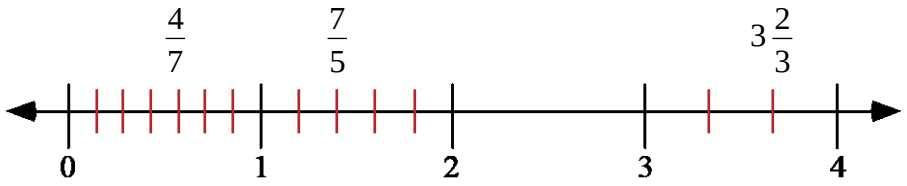
10. The truck will have delivered 105 tonnes.

Final Module Quiz

1. a. $1\frac{13}{24}$ b. $4\frac{8}{15}$ c. $\frac{31}{36}$ d. $1\frac{1}{6}$ e. $14\frac{2}{21}$ f. $22\frac{3}{4}$
   g. $2\frac{1}{2}$ h. $2\frac{2}{3}$ i. $7\frac{1}{2}$ j. $\frac{2}{3}$ k. $16\frac{2}{3}$ l. $1\frac{1}{2}$

2. a. $\frac{2}{3}$ b. $\frac{2}{5}$

3. a. $\frac{5}{6}, \frac{3}{4}, \frac{5}{12}, \frac{3}{8}$ b. $2\frac{5}{6}, 2\frac{5}{7}, 2\frac{2}{3}$

4. 

5. Paul paid $52 per month.

6. The cook needs 2½ cups of sugar, 5¼ cups of flour, and 1⅛ cups of milk.

7. Rona needs $13\frac{13}{20}$ metres of material.

8. Jeff drove 16¾ laps more.

9. 16 videos can be played.

10. 450 claps are needed.