6 Practice Test

For #1 to #5, select the correct answer.

1. Which expression does not equal $4 \times \frac{1}{3}$?

A $1\frac{1}{3}$ **B** $\frac{4}{3}$

C $\frac{1}{3} \times 4$ **D** $\frac{1}{3} \times \frac{1}{3} \times \frac{1}{3} \times \frac{1}{3}$

2. Which expression equals $\frac{4}{5} \div \frac{2}{3}$?

A $\frac{4}{5} \times \frac{2}{3}$ **B** $\frac{5}{4} \times \frac{3}{2}$

C $\frac{4}{5} \times \frac{3}{2}$ **D** $\frac{5}{4} \times \frac{2}{3}$

3. Which expression equals the reciprocal of $\frac{2}{3}$?

A $1 - \frac{2}{3}$ **B** $1 \div \frac{2}{3}$

C $1 + \frac{2}{3}$ **D** $1 \times \frac{2}{3}$

4. What is the value of the expression $\frac{1}{2} \times \left(\frac{4}{3} - \frac{1}{6}\right) + \frac{3}{4}$?

A $\frac{7}{16}$ **B** $\frac{23}{24}$

C $1\frac{1}{3}$ **D** $1\frac{1}{4}$

5. The quotient $\frac{3}{4} \div \frac{5}{12}$ expressed in lowest terms is

A $\frac{9}{5}$ **B** $\frac{5}{16}$

C $\frac{36}{20}$ **D** $\frac{15}{48}$

Complete the statements in #6 to #8.

6. The product of a fraction and its reciprocal is ■.

7. The value of the quotient $2\frac{2}{3} \div 4\frac{2}{3}$ is ■.

8. The value of the product $2\frac{1}{4} \times 1\frac{1}{3}$ is ■.

Short Answer

9. Evaluate.

a) $\frac{3}{8} \times \frac{5}{6}$ **b)** $\frac{6}{5} \div \frac{7}{10}$

c) $3\frac{3}{5} \times \frac{3}{8}$ **d)** $\frac{9}{10} \div 2\frac{1}{2}$

e) $\left(1\frac{1}{4} + \frac{3}{4}\right) \div 1\frac{1}{2} - 1\frac{1}{3}$

10. Leisha worked $6\frac{1}{2}$ h for \$14/h. How much did she earn?

11. Chad likes to eat granola for breakfast every day. He eats $\frac{3}{4}$ of a box per week.

a) What fraction of a box of granola does he eat per day?

b) How many boxes of granola does he eat per year?

12. In computer terminology, a bit is $\frac{1}{8}$ of a byte. How many bits equal 16 bytes?

13. Printer paper is sold in packages of 500 sheets. If a printing job uses $1\frac{3}{4}$ packages of paper, how many sheets is that?

Extended Response

14. Lianne is saving to buy a DVD player that costs $2\frac{1}{2}$ times her weekly allowance. If she spends $\frac{3}{4}$ of her allowance on other things, how long will she take to save the money for the DVD player?

15. Airports around the world have carousels for the luggage of arriving passengers. About $\frac{3}{10}$ of the carousels always turn clockwise. About $\frac{9}{20}$ of the carousels always turn counterclockwise. The rest of the carousels may turn either way.

a) Of every 100 carousels, how many always turn counterclockwise?

b) Of every 100 carousels, how many may turn either way?

c) How many times the number of carousels that always turn clockwise is the number of carousels that always turn counterclockwise?

d) A random survey identified 75 carousels that always turned clockwise. How many carousels do you think were included in the survey? Explain.

Wrap It Up!

Most of the Boreal Plains ecozone is covered by woods and forests. The total area of the Boreal Plains ecozone is about 750 000 km^2, including both land and fresh water. The table shows the approximate fraction of this ecozone found in different locations.

Province/Territory	Fraction of the Boreal Plains Ecozone in the Province/Territory
Alberta	$\frac{13}{25}$
British Columbia	$\frac{1}{20}$
Manitoba	$\frac{17}{100}$
Northwest Territories	$\frac{1}{50}$
Saskatchewan	$\frac{6}{25}$

a) Using the information given above, develop three original word problems that can be answered using division or multiplication of fractions. Include at least one division question and one multiplication question. Write solutions for your questions on a separate sheet.

b) Exchange your questions with a partner. Solve your partner's questions. Show your thinking.

WWW Web Link

To find out more about Canada's ecozones, go to www.mathlinks8.ca and follow the links.