

Class 7 Mathematics Practice Worksheet

Chapter 2 Fractions and Decimals

Section A: Conceptual Section (5 Questions)

Q1. Solve the following multiplication and division of fractions:

(a) $(3 / 4) \times (5 / 7) =$ _____

(b) $(2 / 3) \div (5 / 6) =$ _____

(c) $5 \times (2 / 9) =$ _____

Q2. Match the decimal multiplication problems with their correct answers:

(a) $0.3 \times 0.4 =$ _____

(b) $1.2 \times 0.05 =$ _____

(c) $0.07 \times 10 =$ _____

Q3. State whether the following statements are True or False:

(a) The product of two proper fractions is always less than each of the two fractions. ()

(b) To divide a fraction by a whole number, we multiply the fraction by the reciprocal of the whole number. ()

(c) $4.5 \div 100$ gives an answer of 0.45. (_____)

Q4. Convert the following operational values into their simplest forms:

(a) Three-fifths of 45 = _____

(b) $(1 / 2)$ of $(8 / 9) =$ _____

(c) $(4 / 7) \times 0 =$ _____

Q5. Solve this mixed fractional problem and show your steps below:

$[2_half \times 3_one-third] \div 5$

Section B: Logical Section (5 Questions)

Q6. A rectangular garden plot has a length of 5.4 metres and a width of 3.5 metres.

(a) Find the total area of the garden plot: _____ square metres.

(b) If a gardener uses 0.5 of this total area to grow roses, how much area is used for roses?
_____ square metres.

Q7. A car travels a total distance of 89.1 kilometres in 2.2 hours.

(a) What is the average distance covered by the car in 1 hour? _____ kilometres.

(b) How much distance will it cover in 10 hours at the same speed? _____
kilometres. [1]

Q8. Lipika reads a storybook for 1 $\frac{3}{4}$ hours every day. She reads the entire book in 6 days. How many total hours did she take to read the complete book? [1, 2]

Q9. In a class of 40 students, $\frac{1}{5}$ of the total number of students like to study English, $\frac{2}{5}$ of the total like to study Mathematics, and the remaining students like to study Science.

(a) How many students like to study Mathematics? _____ students.

(b) What fraction of the total number of students like to study Science? _____

Q10. Replace the question mark (?) with <, >, or = to make the statement true:

$(\frac{2}{3}) \times (\frac{3}{4}) ? (\frac{2}{3}) \div (\frac{3}{4})$

Section C: High Thinking Section / HOTS (5 Questions)

Q11. A oil container holds 25.5 litres of liquid oil. Due to a small leakage at the bottom, 0.15 litres of oil leaks out every single hour. How many hours will it take for the container to become completely empty if no more oil is added? Represent your work with a clear decimal equation.

Q12. Find the missing fractional values:

(a) $(\frac{3}{5}) \times (\frac{\quad}{\quad}) = \frac{24}{35}$

(b) $(\frac{\quad}{\quad}) \div (\frac{4}{9}) = 1\frac{1}{2}$

Q13. A wire of length 12_half metres is cut into smaller pieces of equal length. If the length of each smaller piece is 1_one-fourth metres, find the total number of pieces obtained from the wire.

Q14. Solve the expression by converting decimals to fractions to make your calculation precise:

$$(0.75 \div 0.25) \times (1.2 / 0.3) - 4.5$$

Q15. Think carefully: If you multiply a given non-zero fraction by its reciprocal, what is the final result? Does this rule change if the given fraction is an improper fraction? Explain with an example.

Answer Key (For Teachers and Parents)

Section A:

Q1: (a) $15 / 28$, (b) $(2/3) \times (6/5) = 4 / 5$, (c) $10 / 9$ or 1_one-ninth

Q2: (a) 0.12, (b) 0.06, (c) 0.7

Q3: (a) True, (b) True, (c) False ($4.5 \div 100$ is 0.045)

Q4: (a) 27, (b) $4 / 9$, (c) 0

Q5: Convert mixed fractions: $5/2 \times 10/3 = 50/6 = 25/3$. Now divide by 5: $(25/3) \times (1/5) = 5 / 3$ or 1_two-third.

Section B:

Q6: (a) $5.4 \times 3.5 = 18.9$ square metres. (b) $18.9 \times 0.5 = 9.45$ square metres.

Q7: (a) $89.1 \div 2.2 = 40.5$ kilometres. (b) $40.5 \times 10 = 405$ kilometres.

Q8: Total hours = $6 \times 7/4 = 42/4 = 10_half$ hours (or 10.5 hours).

Q9: (a) $2/5$ of 40 = 16 students. (b) Total fraction is 1. Remaining fraction = $1 - (1/5 + 2/5) =$

2/5.

Q10: Left side is $\frac{1}{2}$ (or 0.5). Right side is $\frac{8}{9}$ (or 0.88). Answer is <.

Section C:

Q11: Total hours = $25.5 \div 0.15 = 2550 \div 15 = 170$ hours.

Q12: (a) $8 \div 7$, (b) $\frac{2}{3}$ (since $\frac{2}{3} \times \frac{9}{4} = \frac{18}{12} = \frac{3}{2} = 1\frac{1}{2}$).

Q13: Number of pieces = $25 \div 2 \div \frac{5}{4} = (25 \div 2) \times (\frac{4}{5}) = 10$ pieces.

Q14: $(3) \times (4) - 4.5 = 12 - 4.5 = 7.5$ (or $7\frac{1}{2}$).

Q15: The result is always 1. No, the rule never changes because any fraction multiplied by its upside-down reciprocal cancels out to equal 1 (e.g., $\frac{7}{3} \times \frac{3}{7} = \frac{21}{21} = 1$).