

Fractions and Decimals

Mathematics · Class 5 · Topic-wise Practice Worksheet

TIME 45 minutes	QUESTIONS 18	TOTAL MARKS 24	MAX. SCORE ____ / 24
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Name: _____ Class/Sec: _____ Date: _____

INSTRUCTIONS

- There are **18 questions** in this worksheet. All questions are compulsory.
- Each question has four options (A), (B), (C) and (D). Exactly **one** option is correct.
- Questions 1–15 carry **1 mark** each. Questions 16–18 (Achievers Section) carry **3 marks** each.
- There is no negative marking. Use of a calculator is **not** allowed.
- Rough work may be done in the space at the side of each page.

Section A — Mathematical Reasoning

Q1–Q8 · 1 mark each

1. $\frac{3}{4} + \frac{5}{6} = \underline{\hspace{2cm}}$

(A) $\frac{19}{12}$

(B) $\frac{8}{10}$

(C) $\frac{15}{24}$

(D) $\frac{8}{12}$

2. $\frac{7}{8} - \frac{1}{3} = \underline{\hspace{2cm}}$

(A) $\frac{13}{24}$

(B) $\frac{6}{5}$

(C) $\frac{6}{24}$

(D) $\frac{8}{11}$

3. $\frac{2}{3} \times \frac{9}{10} = \underline{\hspace{2cm}}$

(A) $\frac{18}{13}$

(B) $\frac{11}{13}$

(C) $\frac{3}{5}$

(D) $\frac{20}{27}$

4. $\frac{3}{5} \div \frac{6}{25} = \underline{\hspace{2cm}}$

(A) $\frac{18}{125}$

(B) $\frac{25}{6}$

(C) $\frac{2}{5}$

(D) $\frac{5}{2}$

5. The decimal 0.375 written as a fraction in its simplest form is _____.

(A) $\frac{3}{8}$

(B) $\frac{375}{100}$

(C) $\frac{37}{50}$

(D) $\frac{3}{4}$

6. Which decimal is the **largest**?

(A) 0.68

(B) 0.7

(C) 0.607

(D) 0.6999

7. $8.4 \times 0.5 =$ _____

(A) 0.42

(B) 42

(C) 4.2

(D) 4.9

8. The mixed number $3\frac{2}{5}$ written as an improper fraction is _____.

(A) $\frac{6}{5}$

(B) $\frac{11}{5}$

(C) $\frac{32}{5}$

(D) $\frac{17}{5}$

Section B — Everyday Mathematics and Reasoning

Q9–Q15 · 1 mark each

9. Which shape has exactly $\frac{5}{8}$ of it shaded?

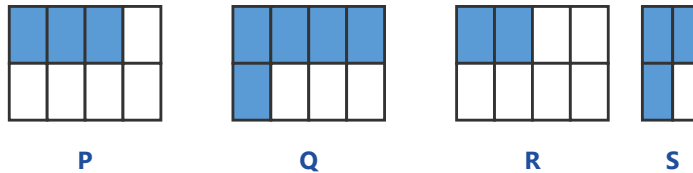


Fig. 9.1 — Four shaded shapes

(A) P

(B) Q

(C) R

(D) S

10. A tank is $\frac{3}{8}$ full. It needs 250 litres more to become $\frac{5}{8}$ full. What is its total capacity?

(A) 1,000 litres

(B) 800 litres

(C) 1,250 litres

(D) 2,000 litres

11. Riya walked 2.75 km in the morning and 1.9 km in the evening. How far did she walk in all?

(A) 4.55 km

(B) 4.65 km

(C) 2.94 km

(D) 4.15 km

12. In a school of 720 students, $\frac{5}{12}$ are girls. How many boys are there?

(A) 300

(B) 360

(C) 420

(D) 480

13. A ribbon 12.5 m long is cut into pieces of 0.25 m each. How many pieces are obtained?

(A) 25

(B) 50

(C) 75

(D) 125

14. Arrange $\frac{2}{3}$, $\frac{3}{4}$, $\frac{5}{8}$ and $\frac{7}{12}$ in **ascending** order.

(A) $\frac{5}{8} < \frac{7}{12} < \frac{2}{3} < \frac{3}{4}$

(B) $\frac{3}{4} < \frac{2}{3} < \frac{5}{8} < \frac{7}{12}$

(C) $\frac{7}{12} < \frac{5}{8} < \frac{2}{3} < \frac{3}{4}$

(D) $\frac{2}{3} < \frac{7}{12} < \frac{5}{8} < \frac{3}{4}$

15. The cost of 1 kg of apples is ₹84.50. What is the cost of 2.5 kg?

(A) ₹169.00

(B) ₹204.25

(C) ₹221.50

(D) ₹211.25

Achievers Section

Q16–Q18 · 3 marks each

16. Consider the following statements.

(i) Between any two fractions there are infinitely many fractions.

(ii) Multiplying a whole number by a proper fraction always gives a smaller number.

(iii) 0.5 is greater than 0.45.

Which of the statements is/are correct?

(A) (i) and (ii) only

(B) (ii) and (iii) only

(C) (i) and (iii) only

(D) All three

17. Sunil spent $\frac{1}{3}$ of his money on books and $\frac{2}{5}$ of the **remainder** on stationery. He was left with ₹360. How much money did he have at first?

(A) ₹900

(B) ₹720

(C) ₹1,000

(D) ₹1,200

18. A recipe needs $1\frac{1}{2}$ cups of flour for 12 biscuits. How many cups are needed for 30 biscuits?

(A) $2\frac{1}{2}$ cups

(B) $3\frac{3}{4}$ cups

(C) 3 cups

(D) $4\frac{1}{2}$ cups

Answer Key

1	A	2	A	3	C	4	D	5	A
6	B	7	C	8	D	9	B	10	A
11	B	12	C	13	B	14	C	15	D
16	D	17	A	18	B				

Solutions

1. Answer: (A) $\frac{19}{12}$

The LCM of 4 and 6 is 12.

$$\frac{3}{4} = \frac{9}{12} \text{ and } \frac{5}{6} = \frac{10}{12}.$$

$$\text{Sum} = \frac{9}{12} + \frac{10}{12} = \frac{19}{12}, \text{ which is } 1 \frac{7}{12}.$$

2. Answer: (A) $\frac{13}{24}$

The LCM of 8 and 3 is 24.

$$\frac{7}{8} = \frac{21}{24} \text{ and } \frac{1}{3} = \frac{8}{24}.$$

$$\text{Difference} = \frac{21}{24} - \frac{8}{24} = \frac{13}{24}.$$

3. Answer: (C) $\frac{3}{5}$

Multiply the numerators and the denominators:

$$\frac{2}{3} \times \frac{9}{10} = \frac{18}{30}.$$

$$\text{Dividing both by 6 gives } \frac{3}{5}.$$

4. Answer: (D) $\frac{5}{2}$

Dividing means multiplying by the reciprocal.

$$\frac{3}{5} \div \frac{6}{25} = \frac{3}{5} \times \frac{25}{6} = \frac{75}{30} = \frac{5}{2}, \text{ which is } 2 \frac{1}{2}.$$

5. Answer: (A) $\frac{3}{8}$

$$0.375 = \frac{375}{1000}.$$

$$\text{Dividing the top and bottom by 125 gives } \frac{3}{8}.$$

6. Answer: (B) 0.7

Compare the tenths digit first: 7, 6, 6 and 6. Only **0.7** has 7 tenths, so it is the largest — even though 0.6999 has more digits.

7. Answer: (C) 4.2

Ignore the decimal points: $84 \times 5 = 420$.

There is 1 decimal place in 8.4 and 1 in 0.5, so the answer needs 2 decimal places: $4.20 = \mathbf{4.2}$.

8. Answer: (D) $\frac{17}{5}$

Multiply the whole number by the denominator and add the numerator:

$$3 \times 5 + 2 = 17.$$

$$\text{So } 3 \frac{2}{5} = \frac{17}{5}.$$

9. Answer: (B) Q

Count the parts. **Q** is divided into 8 equal parts with 5 shaded, which is $\frac{5}{8}$. P shows $\frac{3}{8}$, R shows $\frac{2}{8}$ and S shows $\frac{3}{4}$.

10. Answer: (A) 1,000 litres

The 250 litres fill the gap between $\frac{3}{8}$ and $\frac{5}{8}$.

$$\frac{5}{8} - \frac{3}{8} = \frac{2}{8} = \frac{1}{4} \text{ of the tank.}$$

So $\frac{1}{4}$ of the capacity is 250 litres, giving capacity = $250 \times 4 = \mathbf{1,000 \text{ litres}}$.

11. Answer: (B) 4.65 km

Line up the decimal points and write 1.9 as 1.90.

$$2.75 + 1.90 = \mathbf{4.65 \text{ km}}.$$

12. Answer: (C) 420

$$\text{Girls} = \frac{5}{12} \text{ of } 720 = (720 \div 12) \times 5 = 60 \times 5 = 300.$$

$$\text{Boys} = 720 - 300 = \mathbf{420}.$$

(Alternatively, boys are $\frac{7}{12}$ of 720 = $60 \times 7 = 420$. ✓)

13. Answer: (B) 50

$12.5 \div 0.25$. Multiply both numbers by 100 to clear the decimals:

$$1250 \div 25 = \mathbf{50 \text{ pieces}}.$$

14. Answer: (C) $\frac{7}{12} < \frac{5}{8} < \frac{2}{3} < \frac{3}{4}$

The LCM of 3, 4, 8 and 12 is 24. Rewrite each fraction:

$$\frac{2}{3} = \frac{16}{24}, \frac{3}{4} = \frac{18}{24}, \frac{5}{8} = \frac{15}{24}, \frac{7}{12} = \frac{14}{24}$$

Now compare the numerators: $14 < 15 < 16 < 18$.

So the order is $\frac{7}{12} < \frac{5}{8} < \frac{2}{3} < \frac{3}{4}$.

15. Answer: (D) ₹211.25

$$\begin{aligned} 84.50 \times 2.5 &= 84.50 \times 2 + 84.50 \times 0.5 \\ &= 169.00 + 42.25 = \mathbf{₹211.25}. \end{aligned}$$

16. Answer: (D) All three

Statement (i) is true — the mid-point of any two fractions lies between them, and the trick can be repeated endlessly.

Statement (ii) is true; a proper fraction is less than 1, so multiplying by it shrinks the number (for example $8 \times \frac{3}{4} = 6$).

Statement (iii) is true; comparing tenths, 5 is more than 4. Hence **all three**.

17. Answer: (A) ₹900

After the books, the remainder is $1 - \frac{1}{3} = \frac{2}{3}$ of his money.

He spent $\frac{2}{5}$ of that remainder, so he kept $\frac{3}{5}$ of it.

Money left = $\frac{3}{5}$ of $\frac{2}{3} = \frac{6}{15} = \frac{2}{5}$ of the original.

So $\frac{2}{5}$ of the total is ₹360, giving total = $360 \div 2 \times 5 = \mathbf{₹900}$.

Check: $\frac{1}{3}$ of 900 = ₹300 on books, leaving ₹600; $\frac{2}{5}$ of 600 = ₹240 on stationery, leaving ₹360. ✓

18. Answer: (B) $3\frac{3}{4}$ cups

$$\text{Flour for 1 biscuit} = 1\frac{1}{2} \div 12 = \frac{3}{2} \times \frac{1}{12} = \frac{3}{24} = \frac{1}{8} \text{ cup.}$$

$$\text{Flour for 30 biscuits} = 30 \times \frac{1}{8} = \frac{30}{8} = \frac{15}{4} = \mathbf{3\frac{3}{4} \text{ cups}}.$$