

Fractions and Decimals

Mathematics · Class 6 · 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. $\frac{18}{24}$ in its simplest form is _____.

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

(B) $\frac{9}{12}$

(C) $\frac{2}{3}$

(D) $\frac{6}{8}$

2. $\frac{5}{6} + \frac{7}{9} =$ _____

(A) $\frac{12}{15}$

(B) $\frac{12}{9}$

(C) $\frac{35}{54}$

(D) $\frac{29}{18}$

3. $2\frac{3}{5} \times 1\frac{1}{4} =$ _____

(A) $\frac{13}{4}$

(B) $2\frac{3}{20}$

(C) $\frac{13}{20}$

(D) $\frac{65}{9}$

4. $0.008 \times 100 =$ _____

(A) 0.08

(B) 8

(C) 0.8

(D) 80

5. Which of these decimals is the **smallest**?

(A) 0.4

(B) 0.044

(C) 0.404

(D) 0.04

6. $\frac{7}{8}$ written as a decimal is _____.

(A) 0.875

(B) 0.78

(C) 1.142

(D) 0.87

7. The reciprocal of $2\frac{1}{3}$ is _____.

(A) $\frac{7}{3}$

(B) $\frac{3}{7}$

(C) $\frac{1}{7}$

(D) $3\frac{1}{2}$

8. $5.2 - 3.75 =$ _____

(A) 2.45

(B) 1.55

(C) 1.45

(D) 1.75

Section B — Everyday Mathematics and Reasoning

Q9–Q15 · 1 mark each

9. A jug holds $3\frac{1}{2}$ litres of juice. It is poured equally into glasses of $\frac{1}{4}$ litre each. How many glasses are filled?

(A) 7

(B) 10

(C) 14

(D) 16

10. Anil spent $\frac{2}{5}$ of his pocket money on a book and $\frac{1}{4}$ on a pen. What fraction of his money is left?

(A) $\frac{9}{20}$

(B) $\frac{13}{20}$

(C) $\frac{3}{9}$

(D) $\frac{7}{20}$

11. The cost of 3.5 kg of sugar is ₹157.50. What is the cost of 1 kg?

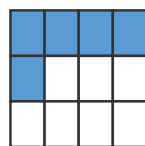
(A) ₹45

(B) ₹42

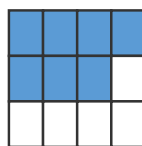
(C) ₹48

(D) ₹52.50

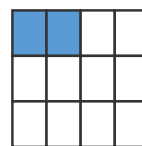
12. Which shape has exactly $\frac{7}{12}$ of it shaded?



P



Q



R



S

Fig. 12.1 — Four shaded shapes

(A) P

(B) Q

(C) R

(D) S

13. A car covers 84.5 km on 6.5 litres of petrol. How far does it go on 1 litre?

(A) 12 km

(B) 13 km

(C) 14 km

(D) 15 km

14. Which fraction lies between $\frac{1}{2}$ and $\frac{3}{4}$?

(A) $\frac{1}{4}$

(B) $\frac{7}{8}$

(C) $\frac{5}{8}$

(D) $\frac{4}{5}$

15. The sum of two numbers is 8.6. If one of them is 3.85, the other is _____.

(A) 12.45

(B) 4.85

(C) 5.25

(D) 4.75

Achievers Section

Q16–Q18 · 3 marks each

16. Consider the following statements.

(i) Every improper fraction is greater than 1.

(ii) Multiplying a number by a fraction greater than 1 gives a larger number.

(iii) 0.1 is greater than 0.09.

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. A tank is $\frac{2}{7}$ full. After 60 litres are added it becomes $\frac{4}{7}$ full. What is the capacity of the tank?

(A) 210 litres

(B) 180 litres

(C) 140 litres

(D) 240 litres

18. A shopkeeper had 25 kg of tea. He sold $8\frac{3}{4}$ kg on Monday and $6\frac{1}{2}$ kg on Tuesday. How much tea is left?

(A) $10\frac{1}{4}$ kg

(B) $9\frac{3}{4}$ kg

(C) $9\frac{1}{4}$ kg

(D) $10\frac{3}{4}$ kg

Answer Key

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

Solutions

1. Answer: (A) $\frac{3}{4}$

The HCF of 18 and 24 is 6.

$\frac{18}{24} = \frac{3}{4}$ after dividing both by 6. Options (B) and (D) are equal in value but are not in simplest form.

2. Answer: (D) $\frac{29}{18}$

The LCM of 6 and 9 is 18.

$$\frac{5}{6} = \frac{15}{18} \text{ and } \frac{7}{9} = \frac{14}{18}$$

$$\text{Sum} = \frac{15}{18} + \frac{14}{18} = \frac{29}{18}, \text{ which is } 1 \frac{11}{18}$$

3. Answer: (A) $\frac{13}{4}$

Change both to improper fractions first.

$$2 \frac{3}{5} = \frac{13}{5} \text{ and } 1 \frac{1}{4} = \frac{5}{4}$$

$$\frac{13}{5} \times \frac{5}{4} = \frac{65}{20}$$

Dividing top and bottom by 5 gives $\frac{13}{4}$, which is $3 \frac{1}{4}$.

4. Answer: (C) 0.8

Multiplying by 100 moves the decimal point two places to the right.

0.008 $\rightarrow$ 0.08 $\rightarrow$ **0.8**.

5. Answer: (D) 0.04

Write each with three decimal places: 0.400, 0.040, 0.404 and 0.044.

Comparing, the smallest is **0.04**.

6. Answer: (A) 0.875

Divide 7 by 8: $7.000 \div 8 = \mathbf{0.875}$. (You can also write $\frac{7}{8} = \frac{875}{1000}$.)

7. Answer: (B) $\frac{3}{7}$

First change to an improper fraction: $2 \frac{1}{3} = \frac{7}{3}$.

The reciprocal turns it upside down, giving $\frac{3}{7}$.

8. Answer: (C) 1.45

Write 5.2 as 5.20 and line up the decimal points.

$$5.20 - 3.75 = \mathbf{1.45}.$$

9. Answer: (C) 14

$$3 \frac{1}{2} = \frac{7}{2} \text{ litres.}$$

$$\text{Number of glasses} = \frac{7}{2} \div \frac{1}{4} = \frac{7}{2} \times \frac{4}{1} = \frac{28}{2} = \mathbf{14} \text{ glasses.}$$

10. Answer: (D) $\frac{7}{20}$

The LCM of 5 and 4 is 20.

$$\frac{2}{5} = \frac{8}{20} \text{ and } \frac{1}{4} = \frac{5}{20}.$$

$$\text{Spent} = \frac{8}{20} + \frac{5}{20} = \frac{13}{20}.$$

$$\text{Left} = \frac{20}{20} - \frac{13}{20} = \frac{7}{20}.$$

11. Answer: (A) ₹45

$$\text{Cost of 1 kg} = 157.50 \div 3.5.$$

$$\text{Multiply both by 10 to clear the decimal: } 1575 \div 35 = \text{₹45}.$$

$$\text{Check: } 45 \times 3.5 = \text{₹157.50. } \checkmark$$

12. Answer: (B) Q

Count the shaded parts out of the total. **Q** has 12 equal parts with 7 shaded, which is $\frac{7}{12}$. **P** shows $\frac{5}{12}$, **R** shows $\frac{2}{12}$ and **S** shows $\frac{3}{4}$.

13. Answer: (B) 13 km

$$\text{Distance per litre} = 84.5 \div 6.5.$$

$$\text{Multiply both by 10: } 845 \div 65 = \text{13 km}.$$

14. Answer: (C) $\frac{5}{8}$

Write everything with denominator 8: $\frac{1}{2} = \frac{4}{8}$ and $\frac{3}{4} = \frac{6}{8}$.

Now $\frac{5}{8}$ lies between $\frac{4}{8}$ and $\frac{6}{8}$. Checking the rest, $\frac{1}{4} = \frac{2}{8}$ is too small, and $\frac{7}{8}$ and $\frac{4}{5}$ are both too large.

So the answer is $\frac{5}{8}$.

15. Answer: (D) 4.75

$$\text{Other number} = 8.6 - 3.85.$$

$$\text{Write 8.6 as 8.60 and subtract: } 8.60 - 3.85 = \text{4.75}.$$

16. Answer: (B) (ii) and (iii) only

Statement (i) is false — an improper fraction such as $\frac{5}{5}$ equals exactly 1, so 'greater than 1' is not always right.

Statement (ii) is true. Statement (iii) is true; comparing tenths, 1 is more than 0. Hence **(ii) and (iii)**.

17. Answer: (A) 210 litres

The 60 litres fill the gap between $\frac{2}{7}$ and $\frac{4}{7}$.

$$\frac{4}{7} - \frac{2}{7} = \frac{2}{7} \text{ of the tank.}$$

So $\frac{2}{7}$ of the capacity is 60 litres.

$$\frac{1}{7} \text{ of the capacity} = 30 \text{ litres, giving capacity} = 30 \times 7 = \text{210 litres}.$$

18. Answer: (B) $9\frac{3}{4}$ kg

$$\text{Total sold} = 8\frac{3}{4} + 6\frac{1}{2} = \frac{35}{4} + \frac{13}{2} = \frac{35}{4} + \frac{26}{4} = \frac{61}{4} = 15\frac{1}{4} \text{ kg.}$$

$$\text{Tea left} = 25 - 15\frac{1}{4} = 9\frac{3}{4} \text{ kg.}$$