

Decimals and Irrational Numbers

MCQ Test, Set 02

Time: 30 minutes

Maximum marks: 25

Name: _____ Class: _____ Date: _____

- There are 25 questions. Each has exactly one correct answer: choose A, B, C or D.
- Each correct answer carries 1 mark. There is no negative marking.
- The key sheet and worked solutions are at the end of this test.

- In decimal form, $\frac{4127}{100}$ is
A. 4.127 **B.** 412.7 **C.** 41.27 **D.** 0.4127
- $0.36 \div 10000 =$
A. 0.000036 **B.** 0.0036 **C.** 0.0000036 **D.** 0.00036
- The value of 0.093×1000 is
A. 93 **B.** 930 **C.** 9.3 **D.** 0.93
- $0.027 \times \square = 2.7$. The number in the box is
A. 10 **B.** 10000 **C.** 100 **D.** 1000
- Which of these is the same as 00105.0200?
A. 15.02 **B.** 105.02 **C.** 105.2 **D.** 15.2
- As a decimal, $2000 + 40 + 6 + \frac{3}{100}$ is
A. 246.3 **B.** 2046.03 **C.** 2046.3 **D.** 246.03
- In 371.952, the place value of 7 is
A. $\frac{7}{10}$ **B.** 7 **C.** 700 **D.** 70
- In decimal form, $\frac{11}{25}$ is
A. 0.44 **B.** 2.75 **C.** 0.044 **D.** 4.4
- Dividing 67 by 40, we get
A. 0.1675 **B.** 1.27 **C.** 1.675 **D.** 16.75
- Which of these fractions is a non-terminating recurring decimal?
A. $\frac{3}{16}$ **B.** $\frac{7}{24}$ **C.** $\frac{9}{20}$ **D.** $\frac{11}{50}$
- Converting $\frac{5}{6}$ into decimal form gives
A. 1.2 **B.** $0.8\bar{6}$ **C.** $0.\bar{5}$ **D.** $0.8\bar{3}$

12. 2.375 as a mixed fraction is

A. $2\frac{3}{4}$

B. $2\frac{3}{80}$

C. $2\frac{3}{8}$

D. $23\frac{3}{4}$

13. The rational number equal to $0.\overline{27}$ is

A. $\frac{3}{10}$

B. $\frac{1}{37}$

C. $\frac{3}{11}$

D. $\frac{27}{100}$

14. The rational number form of $0.1\overline{36}$ is

A. $\frac{5}{37}$

B. $\frac{3}{22}$

C. $\frac{68}{495}$

D. $\frac{136}{999}$

15. $5.906 + 12.45 =$

A. 18.356

B. 7.151

C. 1.8356

D. 17.356

16. $0.452 - 0.03 =$

A. 0.0422

B. 4.22

C. 0.422

D. 0.449

17. The product 0.06×0.9 is

A. 0.54

B. 0.0054

C. 5.4

D. 0.054

18. $3.7 \times 0.24 =$

A. 0.0888

B. 0.222

C. 8.88

D. 0.888

19. The value of $(1.1)^2$ is

A. 1.21

B. 12.1

C. 2.2

D. 0.121

20. $\frac{0.0848}{4} =$

A. 2.12

B. 0.212

C. 0.00212

D. 0.0212

21. $\frac{7.2}{0.9} =$

A. 0.8

B. 8

C. 0.08

D. 80

22. The value of $\frac{0.5 \times 8}{10 \times 0.4}$ is

A. 1

B. 0.1

C. 10

D. 0.01

23. In decimal form, $\frac{1}{2} + \frac{3}{4} + \frac{1}{8}$ is

A. 0.1375

B. 13.75

C. 0.01375

D. 1.375

24. If $5.12 \div 1.6 = 3.2$, then $512 \div 16 =$

A. 320

B. 32

C. 0.32

D. 3.2

25. $0.24 \times x = 0.1872$. Then $x =$

A. 78

B. 7.8

C. 0.78

D. 0.078

Key sheet

1. C	2. A	3. A	4. C	5. B
6. B	7. D	8. A	9. C	10. B
11. D	12. C	13. C	14. B	15. A
16. C	17. D	18. D	19. A	20. D
21. B	22. A	23. D	24. B	25. C

Solutions

1. In decimal form, $\frac{4127}{100}$ is

100 has 2 zeros: move the point 2 places to the left.

$$\frac{4127}{100} = 41.27$$

Ans: (C) 41.27

2. $0.36 \div 10000 =$

Dividing by 10000: move the point 4 places to the left.

$$0.36 \div 10000 = 0.000036$$

Ans: (A) 0.000036

3. The value of 0.093×1000 is

Multiplying by 1000: move the point 3 places to the right.

$$0.093 \times 1000 = 93.0 = 93$$

Ans: (A) 93

4. $0.027 \times \square = 2.7$. The number in the box is

The point moved 2 places to the right, so we multiplied by 100.

Ans: (C) 100

5. Which of these is the same as 00105.0200?

Only the zeros in front of the whole part and at the end of the decimal part can be removed.

Zeros in the middle stay: $00105.0200 = 105.02$

Ans: (B) 105.02

6. As a decimal, $2000 + 40 + 6 + \frac{3}{100}$ is

Write each digit in its place and put 0 where a place is missing.

Thousands 2, hundreds 0, tens 4, ones 6, tenths 0, hundredths 3

$$= 2046.03$$

Ans: (B) 2046.03

7. In 371.952, the place value of 7 is

7 is in the tens place of 371.952.

Place value = 70

Ans: (D) 70

8. In decimal form, $\frac{11}{25}$ is

$$\frac{11}{25} = \frac{11 \times 2 \times 2}{5 \times 5 \times 2 \times 2}$$

$$= \frac{44}{10 \times 10} = \frac{44}{100} = 0.44$$

Ans: (A) 0.44

9. Dividing 67 by 40, we get

$$67 - 40 = 27, 270 - 240 = 30, 300 - 280 = 20, 200 - 200 = 0$$

$$\therefore \frac{67}{40} = 1.675$$

The first remainder 27 is not the decimal part: keep dividing.

Ans: (C) 1.675

10. Which of these fractions is a non-terminating recurring decimal?

$24 = 2 \times 2 \times 2 \times 3$ has a factor other than 2 and 5, so it is non-terminating recurring.

The other denominators have only 2s and 5s, so they terminate.

Ans: (B) $\frac{7}{24}$

11. Converting $\frac{5}{6}$ into decimal form gives

$$50 - 48 = 2, 20 - 18 = 2: \text{ the remainder repeats.}$$

$$\frac{5}{6} = 0.8333333 \dots = 0.8\overline{3}$$

Ans: (D) $0.8\overline{3}$

12. 2.375 as a mixed fraction is

$$2.375 = \frac{2375}{1000} = \frac{19}{8}$$

$$19 \div 8 = 2 \text{ remainder } 3, \text{ so } \frac{19}{8} = 2\frac{3}{8}$$

Ans: (C) $2\frac{3}{8}$

13. The rational number equal to $0.\overline{27}$ is

$$100x = 27.272727 \dots, x = 0.272727 \dots$$

$$(-) 99x = 27, x = \frac{27}{99} = \frac{3}{11}$$

Ans: (C) $\frac{3}{11}$

14. The rational number form of $0.1\overline{36}$ is

$$1000x = 136.363636 \dots, 10x = 1.363636 \dots$$

$$(-) 990x = 135, x = \frac{135}{990} = \frac{3}{22}$$

(Short method: $\frac{136-1}{990}$)

Ans: (B) $\frac{3}{22}$

15. $5.906 + 12.45 =$

Keep the decimal points in one line:

$$\begin{array}{r} 5.906 \\ + 12.450 \\ \hline 18.356 \end{array}$$

Ans: (A) 18.356

16. $0.452 - 0.03 =$

Keep the decimal points in one line (fill zeros):

$$\begin{array}{r} 0.452 \\ - 0.030 \\ \hline 0.422 \end{array}$$

Ans: (C) 0.422

17. The product 0.06×0.9 is

Multiply without the points: $6 \times 9 = 54$

Decimal places: $2 + 1 = 3$

$$0.06 \times 0.9 = 0.054$$

Ans: (D) 0.054

18. $3.7 \times 0.24 =$

Multiply without the points: $37 \times 24 = 888$

Decimal places: $1 + 2 = 3$

$$3.7 \times 0.24 = 0.888$$

Ans: (D) 0.888

19. The value of $(1.1)^2$ is

$$(1.1)^2 = 1.1 \times 1.1$$

$11 \times 11 = 121$; decimal places $1 + 1 = 2$

$$(1.1)^2 = 1.21 \text{ (not } 1.1 \times 2)$$

Ans: (A) 1.21

20. $\frac{0.0848}{4} =$

$$\frac{0.0848}{4} = \frac{848}{10000 \times 4}$$

$$848 \div 4 = 212$$

$$= \frac{212}{10000} = 0.0212$$

Ans: (D) 0.0212

21. $\frac{7.2}{0.9} =$

$$\frac{7.2}{0.9} = \frac{7.2 \times 10}{0.9 \times 10} = \frac{72}{9}$$

$$72 \div 9 = 8$$

Ans: (B) 8

22. The value of $\frac{0.5 \times 8}{10 \times 0.4}$ is

$$0.5 \times 8 = 4.0 = 4 \text{ and } 10 \times 0.4 = 4$$

$$\frac{4}{4} = 1$$

Ans: (A) 1

23. In decimal form, $\frac{1}{2} + \frac{3}{4} + \frac{1}{8}$ is

LCM of 2, 4, 8 is 8.

$$\frac{1}{2} + \frac{3}{4} + \frac{1}{8} = \frac{4+6+1}{8} = \frac{11}{8}$$

$$= 1.375$$

Ans: (D) 1.375

24. If $5.12 \div 1.6 = 3.2$, then $512 \div 16 =$

$$\begin{aligned} 512 \div 16 &= \frac{5.12 \times 100}{1.6 \times 10} \\ &= 3.2 \times 10 = 32 \end{aligned}$$

Ans: (B) 32

25. $0.24 \times x = 0.1872$. Then $x =$

$$\begin{aligned} x &= \frac{0.1872}{0.24} = \frac{18.72}{24} \\ &= 0.78 \end{aligned}$$

Check: $0.78 \times 0.24 = 0.1872$

Ans: (C) 0.78
