

**FRACTIONS-DECIMALS-PERCENTAGES – PRACTICE QUESTIONS  
NON-CALCULATOR**



**metatutor**

1.

Convert each fraction into a percentage:

(a)  $\frac{1}{2}$

(b)  $\frac{1}{10}$

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

(d)  $\frac{1}{5}$

(e)  $\frac{3}{10}$

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

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

(h)  $\frac{9}{10}$

(i)  $\frac{11}{100}$

(j)  $\frac{83}{100}$

(k)  $\frac{7}{50}$

(l)  $\frac{4}{25}$

(m)  $\frac{1}{20}$

(n)  $\frac{33}{50}$

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

(p)  $\frac{16}{25}$

2.

Convert each number into a fraction, fully simplifying each fraction where possible:

(a) 50%

(b) 0.7

(c) 0.75

(d) 31%

(e) 0.03

(f) 0.25

(g) 9%

(h) 10%

(i) 0.2

(j) 81%

(k) 44%

(l) 0.6

(m) 0.65

(n) 15%

(o) 8%

(p) 0.52

(q) 18%

(r) 0.32

(s) 95%

3.

Complete the table. Fully simplify all fractions where possible.

<b>Fraction</b>	<b>Decimal</b>	<b>Percentage</b>
$\frac{1}{4}$		
	0.1	
		50%
	0.9	
$\frac{3}{4}$		
	0.2	
		60%
	0.01	
$\frac{4}{5}$		

4.

Match each fraction with an equivalent decimal/percentage:

0.1	$\frac{11}{100}$
70%	$\frac{1}{10}$
5%	$\frac{1}{4}$
0.11	$\frac{2}{5}$
25%	$\frac{7}{10}$
12%	$\frac{1}{20}$
0.4	$\frac{3}{25}$

5.

Circle the fraction that is equivalent to 30%.

$\frac{1}{3}$

$\frac{3}{10}$

$\frac{3}{5}$

$\frac{3}{100}$

6.

Circle the fraction that is equivalent to 0.25.

$\frac{4}{5}$

$\frac{1}{4}$

$\frac{4}{10}$

$\frac{3}{4}$

7.

Circle the fraction that is equivalent to 60%.

$\frac{6}{100}$

$\frac{3}{50}$

$\frac{3}{5}$

$\frac{20}{60}$

8.

Circle the fraction that is equivalent to 0.15.

$\frac{3}{15}$

$\frac{3}{20}$

$\frac{3}{25}$

$\frac{3}{50}$

9.

Circle the fraction that is equivalent to 5%.

$\frac{5}{10}$

$\frac{1}{5}$

$\frac{1}{50}$

$\frac{1}{20}$

10.

Circle the number that is equivalent to  $\frac{7}{10}$ .

0.07

0.7

70%

77%

11.

Circle the number that is equivalent to  $\frac{3}{100}$ .

30%

0.03

0.33

103%

12.

Circle the number that is equivalent to  $\frac{11}{20}$ .

11%

0.44

0.22

55%

13.

Circle the number that is equivalent to  $\frac{12}{25}$ .

12%

25%

0.48

0.6

14.

Circle the fraction that is equivalent to  $\frac{1}{2}$ .

$$\frac{6}{14}$$

$$\frac{8}{16}$$

$$\frac{10}{18}$$

$$\frac{12}{20}$$

15.

Circle the fraction that is equivalent to  $\frac{1}{3}$ .

$$\frac{3}{10}$$

$$\frac{9}{20}$$

$$\frac{10}{30}$$

$$\frac{12}{32}$$

16.

Circle the fraction that is equivalent to  $\frac{2}{5}$ .

$$\frac{6}{10}$$

$$\frac{9}{15}$$

$$\frac{12}{20}$$

$$\frac{10}{25}$$

17.

Circle the fractions that are equivalent to  $\frac{3}{8}$ .

$$\frac{8}{12}$$

$$\frac{6}{16}$$

$$\frac{10}{24}$$

$$\frac{15}{40}$$

18.

Circle the fractions that are equivalent to  $\frac{3}{4}$ .

$$\frac{12}{16}$$

$$\frac{7}{8}$$

$$\frac{30}{40}$$

$$\frac{28}{32}$$

19.

Circle the fractions that are equivalent to  $\frac{1}{6}$ .

$$\frac{8}{18}$$

$$\frac{4}{24}$$

$$\frac{6}{30}$$

$$\frac{7}{42}$$

20.

Put these fractions into order, smallest to largest.

$$\frac{2}{5}$$

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

$$\frac{3}{10}$$

$$\frac{7}{20}$$

21.

Put these fractions into order, smallest to largest.

$$\frac{1}{2}$$

$$\frac{7}{12}$$

$$\frac{5}{6}$$

$$\frac{3}{4}$$

22.

Put these fractions into order, smallest to largest.

$$\frac{17}{30}$$

$$\frac{1}{2}$$

$$\frac{3}{5}$$

$$\frac{8}{15}$$

23.

Put these fractions into order, smallest to largest.

$$\frac{9}{10}$$

$$\frac{21}{25}$$

$$\frac{89}{100}$$

$$\frac{17}{20}$$

24.

Put these fractions into order, smallest to largest.

$$\frac{1}{3}$$

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

$$\frac{3}{8}$$

$$\frac{5}{12}$$

25.

Put these fractions into order, smallest to largest.

$$\frac{7}{8}$$

$$\frac{17}{20}$$

$$\frac{3}{4}$$

$$\frac{4}{5}$$

26.

Put these fractions into order, smallest to largest.

$$\frac{2}{3}$$

$$\frac{3}{4}$$

$$\frac{7}{12}$$

$$\frac{5}{9}$$

27.

Put these fractions into order, smallest to largest.

$$\frac{13}{50}$$

$$\frac{1}{5}$$

$$\frac{7}{25}$$

$$\frac{3}{20}$$

28.

Put these fractions into order, smallest to largest.

$$\frac{4}{5}$$

$$\frac{7}{10}$$

$$\frac{17}{20}$$

$$\frac{11}{15}$$

29.

Put these fractions into order, smallest to largest.

$$\frac{3}{14}$$

$$\frac{1}{7}$$

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

$$\frac{5}{28}$$

30.

Put these numbers into order, smallest to largest.

$$\frac{3}{10}$$

32%

0.35

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

31.

Put these numbers into order, smallest to largest.

90%

$$\frac{4}{5}$$

$$\frac{3}{4}$$

0.85

32.

Put these numbers into order, smallest to largest.

$$\frac{3}{20}$$

13%

0.09

$$\frac{2}{25}$$

33.

Put these numbers into order, smallest to largest.

46%

$$\frac{90}{200}$$

0.41

$$\frac{11}{25}$$

34.

Put these numbers into order, smallest to largest.

27%

0.23

$$\frac{8}{32}$$

$$\frac{12}{50}$$

35.

Put these numbers into order, smallest to largest.

$$\frac{13}{20}$$

0.7

$$\frac{3}{5}$$

67%

36.

Put these numbers into order, smallest to largest.

12%

$$\frac{6}{40}$$

$$\frac{9}{36}$$

0.21



37.

Angus and Bruce both bought the same pizza.

Angus cut his pizza into 8 equal sections and ate 5 of them.

Bruce cut his pizza into 12 equal sections and ate 7 of them.

Who ate the most pizza?

38.

Caitlyn and Dennis both took a maths test.

Caitlyn got 36% of the questions correct.

Dennis got  $\frac{7}{20}$  of the questions correct.

Who did better in the test?

39.

Eddie bought a big bag of sweets.

He gave  $\frac{3}{10}$  of them to his mum.

He gave 33% of them to his dad.

He kept the rest for himself.

Who received more sweets – Eddie, his mum or his dad?

40.

At Forder Hospital, 12% of the staff work part-time.

At Halle Hospital, 16 of the 160 staff work part-time.

Which hospital has the higher proportion of part-time staff?

41.

Francesca, Gerry and Henry all played in a chess tournament.

Francesca played 40 games and won 18 of them.

Gerry played 60 games and won 24 of them.

Henry won 48% of his games.

Who had the highest win percentage – Francesca, Gerry or Henry?

42.

A group of people work in an office.

$\frac{3}{25}$  of them walk to work.

18% of them cycle to work.

A quarter of them catch the train to work.

The rest drive to work.

What percentage of the group drive to work?

43.

Ilia and Jerome each have a bag of marbles containing green and blue marbles.

32 of Ilia's 80 marbles are green.

63% of Jerome's marbles are blue.

Whose bag has the highest proportion of blue marbles?