

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.

Fraction	Decimal	Percentage
$\frac{1}{4}$		
	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 $\frac{7}{10}$.

$$0.07$$

$$0.75$$

$$70\%$$

$$77\%$$

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?