

GCSE Maths: Percentages, fractions and decimals (Higher): worksheet

GCSE Maths - Percentages - Higher - Lesson 5.1

Name: _____

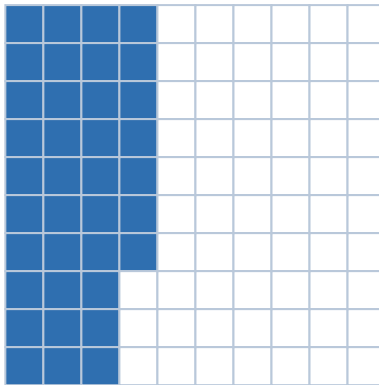
Date: _____

Score: _____

17 questions. Write your answers in the spaces. Answers and step-by-step help are free at websink.site/gcse/maths/ch05-percentages/higher/percentages-fractions-and-decimals/

Exercise 5A Percentages, fractions and decimals Non-calculator

1 In the hundred square, 37 of the small squares are shaded.



(a) Write the shaded part as a fraction out of 100.

Answer: _____

(b) Write the shaded part as a percentage.

Answer: _____

(c) Write the shaded part as a decimal.

Answer: _____

2 Write each percentage as a decimal.

(a) 8%

Answer: _____

(b) 45%

Answer: _____

(c) 70%

Answer: _____

(d) 3%

Answer: _____

(e) 125%

Answer: _____

(f) 12.5%

Answer: _____

3 Write each percentage as a fraction in its simplest form.

(a) 50%

Answer:

(b) 20%

Answer:

(c) 15%

Answer:

(d) 45%

Answer:

(e) 4%

Answer:

(f) 85%

Answer:

4 Write each decimal as a percentage.

(a) 0.27

Answer:

(b) 0.9

Answer:

(c) 0.05

Answer:

(d) 0.375

Answer:

(e) 1.2

Answer:

(f) 2.5

Answer:

5 Write each fraction as a percentage. (Hint: make the denominator 100.)

(a) $\frac{7}{10}$

Answer:

(b) $\frac{9}{25}$

Answer:

(c) $\frac{3}{20}$

Answer:

(d) $\frac{17}{50}$

Answer:

(e) $\frac{11}{20}$

Answer: _____

(f) $\frac{13}{25}$

Answer: _____

6 Write each fraction as a percentage. You need to divide the top by the bottom.

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

Answer: _____

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

Answer: _____

(c) $\frac{7}{40}$

Answer: _____

(d) $\frac{9}{16}$

Answer: _____

7 Write each fraction as a decimal and as a percentage.

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

Answer: _____

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

Answer: _____

(c) $\frac{17}{25}$

Answer: _____

(d) $\frac{1}{8}$

Answer: _____

8 Write these in order, starting with the smallest.

(a) (a) $\frac{3}{5}$, 0.55, 62%

Answer: _____

(b) (b) 0.4, $\frac{7}{20}$, 36%

Answer: _____

(c) (c) 45%, $\frac{9}{20}$, 0.405, $\frac{2}{5}$

Answer: _____

9 Mia says, "5% as a decimal is 0.5." Is she right? Explain your answer.

Answer: _____

10 Which is bigger, 0.4 or 4%? Show how you know.

Answer:

- 11** In a class of 25 students, 18 walk to school.

(a) What percentage of the class walk to school?

Answer:

(b) What percentage do not walk to school?

Answer:

- 12** Three phones show their battery levels as 0.35, $\frac{3}{8}$ and 36%. Write the three battery levels in order, **largest first**.

Answer:

- 13** One shop has " $\frac{1}{4}$ off all T-shirts". Another has "20% off all T-shirts". Which shop has the bigger discount?

Answer:

- 14** Is $\frac{3}{7}$ bigger or smaller than 40%? Show your working. (Do not use a calculator.)

Answer:

- 15** Write each fraction as a percentage. Give your answers correct to 1 decimal place.

(a) $\frac{1}{3}$

Answer:

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

Answer:

(c) $\frac{2}{9}$

Answer:

(d) $\frac{7}{12}$

Answer:

- 16** Write each percentage as a fraction in its simplest form.

(a) 0.8%

Answer:

(b) 2.5%

Answer:

(c) 12.5%

Answer:

(d) 0.05%

Answer:

- 17** Write down a fraction with denominator 40 that is bigger than 30% but smaller than 35%.

Answer: