

# GCSE Maths: Decimals and fractions (Higher): answers

GCSE Maths - Decimals, Rounding and Estimation - Higher - Lesson 4.5

**Answers.** Final answers to the worksheet questions. Full step-by-step solutions for every question are free at [websink.site/gcse/maths/ch04-decimals-rounding-estimation/higher/decimals-and-fractions/](https://websink.site/gcse/maths/ch04-decimals-rounding-estimation/higher/decimals-and-fractions/)

## Exercise 4E Decimals and fractions

Non-calculator

**1** Write each decimal as a fraction in its simplest form.

(a) 0.7

**Answer:**  $\frac{7}{10}$

(b) 0.25

**Answer:**  $\frac{1}{4}$

(c) 0.6

**Answer:**  $\frac{3}{5}$

(d) 0.35

**Answer:**  $\frac{7}{20}$

(e) 0.125

**Answer:**  $\frac{1}{8}$

(f) 0.04

**Answer:**  $\frac{1}{25}$

**2** Write each fraction as a decimal.

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

**Answer:** 0.5

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

**Answer:** 0.6

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

**Answer:** 0.45

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

**Answer:** 0.52

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

**Answer:** 0.34

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

**Answer:** 0.8

**3** Write each fraction as a decimal.

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

**Answer:** 0.375

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

**Answer:** 0.625

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

**Answer:** 0.125

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

**Answer:** 0.175

**4** Write each decimal as a mixed number in its simplest form.

(a) 3.5

**Answer:**  $3\frac{1}{2}$

(b) 1.25

**Answer:**  $1\frac{1}{4}$

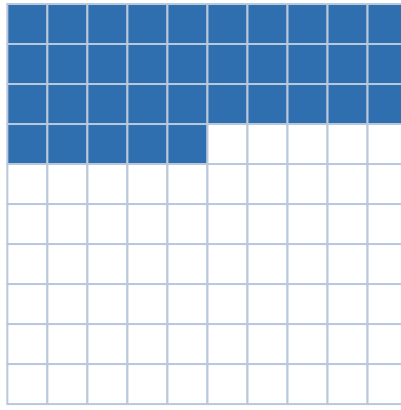
(c) 2.04

**Answer:**  $2\frac{1}{25}$

(d) 6.8

**Answer:**  $6\frac{4}{5}$

**5** The diagram is a 10 by 10 grid. Some of the squares are shaded. Write the shaded part as a decimal and as a fraction in its simplest form.



**Answer:**  $0.35 = \frac{7}{20}$

**6** Write these in order, smallest first.

(a)  $0.4, \frac{3}{8}, 0.35$

**Answer:**  $0.35, \frac{3}{8}, 0.4$

(b)  $\frac{7}{10}, 0.65, \frac{4}{5}, 0.7$

**Answer:**  $0.65, \frac{7}{10}, 0.7, \frac{4}{5}$

(c)  $0.55, \frac{1}{2}, \frac{9}{20}, 0.5$

**Answer:**  $\frac{9}{20}, \frac{1}{2}, 0.5, 0.55$

**7** Which is bigger,  $\frac{3}{8}$  or  $0.4$ ? Show your working.

**Answer:**  $0.4$

**8** A bag of flour has a mass of  $1.5$  kg. Joe uses  $\frac{3}{5}$  of the flour. How many kilograms of flour does he use?

**Answer:**  $0.9$  kg

**9** Explain why  $0.5 = \frac{5}{10} = \frac{1}{2}$ .

**Answer:**  $5$  tenths simplifies to one half

**10** Is  $0.3$  the same as  $\frac{3}{100}$ ? Give a reason.

**Answer:** No,  $0.3 = \frac{3}{10}$

**11** Write a fraction that is between  $0.3$  and  $0.4$ . Give your answer in the form  $\frac{a}{b}$  where  $b$  is no more than  $20$ .

**Answer:**  $\frac{7}{20}$  (other answers are possible)

**12** Write  $0.0125$  as a fraction in its simplest form.

**Answer:**  $\frac{1}{80}$

- 13** Show that  $\frac{3}{16} = 0.1875$  as a decimal, and write 3.1875 as a mixed number in its simplest form.

**Answer:** 0.1875;  $3\frac{3}{16}$