

## GCSE Maths: Imperial units and currency (Higher): answers

GCSE Maths - Units and Compound Measures - Higher - Lesson 16.3

**Answers.** Final answers to the worksheet questions. Full step-by-step solutions for every question are free at [websink.site/gcse/maths/ch16-units-compound-measures/higher/imperial-units-and-currency/](https://websink.site/gcse/maths/ch16-units-compound-measures/higher/imperial-units-and-currency/)

### Exercise 16D Imperial units and currency

Calculator allowed

**1** Use 1 inch  $\approx$  2.5 cm, 1 mile  $\approx$  1.6 km and 1 kg  $\approx$  2.2 pounds to change:

(a) 20 inches to cm

**Answer:** 50 cm

(b) 150 cm to inches

**Answer:** 60 inches

(c) 30 miles to km

**Answer:** 48 km

(d) 72 km to miles

**Answer:** 45 miles

(e) 10 kg to pounds

**Answer:** 22 pounds

(f) 33 pounds to kg

**Answer:** 15 kg

**2** Use the exact imperial facts to change (12 in = 1 ft, 3 ft = 1 yd, 14 lb = 1 st, 16 oz = 1 lb, 8 pints = 1 gallon):

(a) 4 feet to inches

**Answer:** 48 inches

(b) 60 inches to feet

**Answer:** 5 feet

(c) 3 yards to feet

**Answer:** 9 feet

(d) 2 stone to pounds

**Answer:** 28 pounds

(e) 48 ounces to pounds

**Answer:** 3 pounds

(f) 24 pints to gallons

**Answer:** 3 gallons

**3** The exchange rate is £1 = €1.15. Change:

(a) £40 to euros

**Answer:** €46

(b) £225 to euros

**Answer:** €258.75

(c) €92 to pounds

**Answer:** £80

(d) €172.50 to pounds

**Answer:** £150

**4** The exchange rate is £1 = \$1.25. Change:

(a) £64 to dollars

**Answer:** \$80

(b) \$135 to pounds

**Answer:** £108

(c) £18.40 to dollars

**Answer:** \$23

**5** A hotel in Spain costs €85 per night. Work out the cost of 5 nights in pounds when £1 = €1.15. Give your answer to the nearest penny.

**Answer:** £369.57

**6** A phone costs £480 in the UK and €540 in Spain. The exchange rate is £1 = €1.15. In which country is it cheaper, and by how much (to the nearest penny)?

**Answer:** Spain, by £10.43

**7** A speed limit sign in the UK says 30 mph. A sign abroad says 50 km/h. Which limit is higher? Use 1 mile  $\approx$  1.6 km.

**Answer:** 50 km/h is higher (30 mph = 48 km/h)

**8** A recipe needs 8 ounces of butter. Sue has 200 g. Does she have enough? Use 1 ounce  $\approx$  28 g.

**Answer:** No. She needs 224 g, so she is 24 g short

**9** Dan changes 100 euros to pounds by working out  $100 \times 1.15 = 115$ , when £1 = €1.15. Explain why his answer must be wrong and give the correct answer to the nearest penny.

**Answer:** £86.96

**10** A bureau charges a fee of £6 and then changes the rest of the money at £1 = \$1.28. Zara gives the bureau £300. How many dollars does she get?

**Answer:** \$376.32

**11** A boxer has mass 12 stone 6 pounds. (a) Write this in pounds. (b) Use 1 kg  $\approx$  2.2 pounds to change this to kilograms, to 1 decimal place.

(a) In pounds

**Answer:** 174 pounds

(b) In kg

**Answer:** 79.1 kg

- 12** A traveller changes £400 into euros at £1 = €1.15. She spends €280 on holiday. She changes the rest back into pounds at £1 = €1.25. How many pounds does she get back?

**Answer:** £144

- 13** A hotel costs €590. At the start of the week the rate was £1 = €1.18. At the end of the week it was £1 = €1.12. How much more does the hotel cost, in pounds, at the end of the week? Give your answer to the nearest penny.

**Answer:** £26.79