

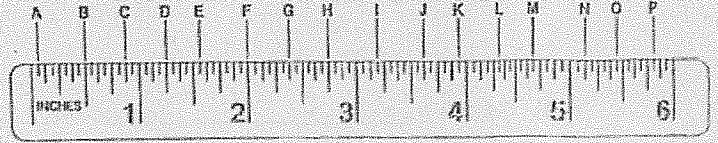
DAY 1 - Measuring & Converting Between Units

Which units you would use to measure in each case.

- a) the size of a book *cm in*
 - b) a desk *m, cm, in, ft*
 - c) a lawn *yd, ft, m*
 - d) an airfield *km, mi, yd*
3. For each situation, which would be more appropriate: an exact measure or an approximation.
- a) the dose of a medicine *exact*
 - b) the outside temperature when you are deciding what to wear *approx*
 - c) the length of a car trip *approx*
 - d) the dimensions of parts of a machine *exact*
 - e) your height *approx*

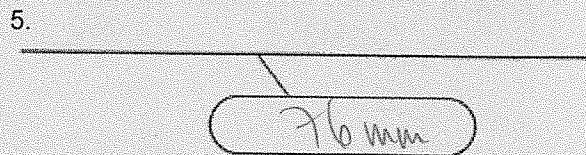
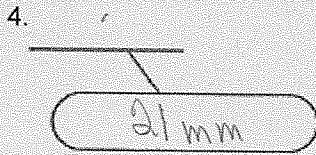
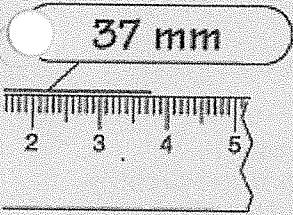
2.

Read the indicated measures on the ruler below. It measures lengths up to 6" to the nearest 16th inch. Hint: All measures are reduced to lowest terms.

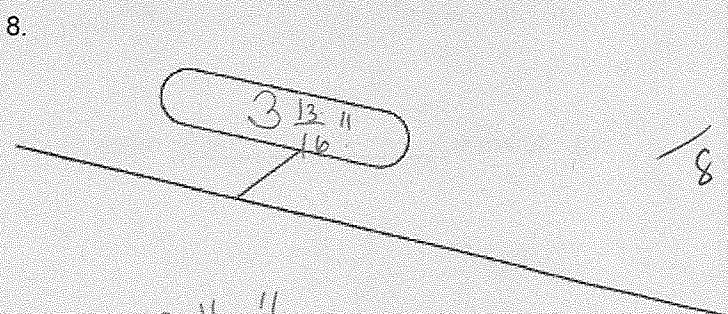
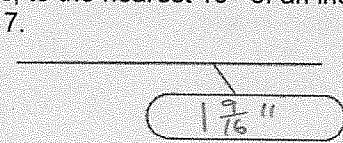
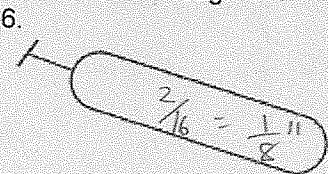


- I. $3 \frac{3}{16}$ "
 - J. $3 \frac{10}{16}$ " *$3 \frac{5}{8}$ "*
 - K. $3 \frac{15}{16}$ "
 - L. $4 \frac{5}{16}$ "
 - M. $4 \frac{4}{16}$ "
 - N. $5 \frac{2}{16}$ " *$5 \frac{1}{8}$ "*
 - O. $5 \frac{7}{16}$ "
 - P. $5 \frac{13}{16}$ "
- units / 1*

Measure each segment to the nearest millimeter, as shown



Measure each segment in inches, to the nearest 16th of an inch



9. ANS: $1 \frac{2}{16} = 1 \frac{1}{8}$ "

10. ANS: $1 \frac{5}{16}$ "

11. ANS: $3 \frac{11}{16}$ "

SINGLE STEP CONVERSIONS

12. Convert the following metric measures:

a) 2400 m = 2.4 km

$$2400\cancel{m} \cdot \frac{1 \cancel{km}}{1000 \cancel{m}} = \frac{2400 \cancel{km}}{1000}$$

b) 34 cm = 340 mm

$$34\cancel{cm} \cdot \frac{10 \cancel{mm}}{1 \cancel{cm}} = \frac{340 \cancel{cm}}{1}$$

c) 5 L = 5000 mL

$$5\cancel{L} \cdot \frac{1000 \cancel{mL}}{1 \cancel{L}} = \frac{5000 \cancel{mL}}{1}$$

d) 3200 g = 3.2 kg

$$3200\cancel{g} \cdot \frac{1 \cancel{kg}}{1000 \cancel{g}} = \frac{3200 \cancel{kg}}{1000}$$

13. Convert the following imperial measures:

a) 4 pounds = 64 ounces

$$4\cancel{lb} \cdot \frac{16 \cancel{oz}}{1 \cancel{lb}} = \frac{64 \cancel{oz}}{1}$$

b) 6.5 quarts = 13 pints

$$6.5\cancel{qt} \cdot \frac{2 \cancel{pt}}{1 \cancel{qt}} = \frac{13 \cancel{pt}}{1}$$

c) 42 inches = 3.5 feet

$$42\cancel{in} \cdot \frac{1 \cancel{ft}}{12 \cancel{in}} = \frac{42 \cancel{ft}}{12}$$

d) 3 miles = 5280 yards

$$3\cancel{mi} \cdot \frac{1760 \cancel{yd}}{1 \cancel{mi}} = 5280 \cancel{yd}$$

14. Convert the following metric and imperial measures:

a) 36 inches = 91.44 cm

$$36\cancel{in} \cdot \frac{2.54 \cancel{cm}}{1 \cancel{in}} = \frac{91.44 \cancel{cm}}{1}$$

b) 40 km = 25 miles

$$40\cancel{km} \cdot \frac{1 \cancel{mi}}{1.6 \cancel{km}} = \frac{40 \cancel{mi}}{1.6}$$

c) 10 gallon = 37.85 L

$$10\cancel{gal} \cdot \frac{3.785 \cancel{L}}{1 \cancel{gal}} = \frac{37.85 \cancel{L}}{1}$$

d) 140 g = 4.9 ounce

$$140\cancel{g} \cdot \frac{1 \cancel{oz}}{28.35 \cancel{g}} = \frac{140 \cancel{oz}}{28.35}$$

15. Jesse needs to order flooring for his room. He measured the dimensions of the room to be 300 cm by 375 cm. However, the flooring company needs to know these dimensions in feet. Find the dimensions of the room in feet.

$$300\cancel{cm} \cdot \frac{1 \cancel{ft}}{30.48 \cancel{cm}} = \frac{300 \cancel{ft}}{30.48} = 9.8 \cancel{ft}$$

$$375\cancel{cm} \cdot \frac{1 \cancel{ft}}{30.48 \cancel{cm}} = \frac{375 \cancel{ft}}{30.48} = 12.3 \cancel{ft}$$

∴ dimensions are 9.8 ft by 12.3 ft

16.

You have a 1.5 gal jug. How many litres will it hold?

$$1.5 \cancel{gal} \cdot \frac{3.785 \cancel{L}}{1 \cancel{gal}} = 5.68 \cancel{L}$$