The size of a unit of measurement depends on which unit has been selected as the whole.

A millimetre is a tenth of a centimetre, but it is only a hundredth of a decimetre. REMEMBER: A decimetre is 10 centimetres.

1. Draw a picture in the space provided to show 1 tenth of each whole.
   a) [Diagram]
   b) [Diagram]
   c) [Diagram]

2. Write each measurement as a fraction then as a decimal.
   a) $1 \text{ cm} = \frac{1}{10} \text{ dm} = \frac{1}{10} \text{ dm}$
   b) $100 \text{ mm} = \frac{1}{100} \text{ m} = \frac{1}{100} \text{ m}$
   c) $1 \text{ mm} = \frac{1}{1000} \text{ cm} = \frac{1}{1000} \text{ cm}$
   d) $16 \text{ mm} = \frac{16}{1000} \text{ cm} = \frac{16}{1000} \text{ cm}$
   e) $77 \text{ mm} = \frac{77}{1000} \text{ dm} = \frac{77}{1000} \text{ dm}$
   f) $83 \text{ cm} = \frac{83}{100} \text{ m} = \frac{83}{100} \text{ m}$

3. Add the measurements by first changing the smaller unit into a decimal in the larger unit.
   a) $5 \text{ cm} + 7.3 \text{ dm} = \frac{5}{10} \text{ dm} + 7.3 \text{ dm} = 7.8 \text{ dm}$
   b) $5 \text{ cm} + 3.2 \text{ dm} = \frac{5}{10} \text{ dm} + 3.2 \text{ dm}$
   c) $8 \text{ mm} + 5.7 \text{ cm} = \frac{8}{1000} \text{ cm} + 5.7 \text{ cm}$
   d) $33 \text{ cm} + 1.64 \text{ m} = \frac{33}{100} \text{ m} + 1.64 \text{ m}$
   e) $685 \text{ cm} + 12.3 \text{ m} = \frac{685}{100} \text{ m} + 12.3 \text{ m}$
   f) $982 \text{ cm} + 1.5 \text{ m} = \frac{982}{100} \text{ m} + 1.5 \text{ m}$

4. Write a decimal for each description. Some questions have more than one answer.
   a) Between 4.31 and 4.34
   b) Between 2.60 and 2.70
   c) Between 13.75 and 13.8
   d) Between 9.7 and 9.8
   e) One tenth greater than 5.23
   f) One hundredth less than 4.00
5. Add.
   a) \(4000 + 300 + 7 + 0.01 = \)  
   b) \(20000 + 300 + 30 + 0.2 + 0.04 = \)  
   c) \(300000 + 20000 + 5000 + 70 + 0.1 + 0.09 + 0.006 = \)

6. Write < or > to show which decimal is greater.
   a) 4.9 \(\square\) 4.6  
   b) 3.45 \(\square\) 3.35  
   c) 1.9 \(\square\) 1.26  
   d) 0.7 \(\square\) 0.524

7. Put a decimal in each number so that the digit 7 has the value \(\frac{7}{10}\).
   a) 572  
   b) 107  
   c) 28759  
   d) 7

8. Use the digits 5, 6, 7 and 0 to write a number between the given numbers.
   a) \(0.567 < \) \(\square\) \(< 0.576\)  
   b) \(5.607 < \) \(\square\) \(< 5.760\)

9. Write three decimals between .3 and .5: \(\square\) \(\square\) \(\square\)

10. Write –, +, ×, or ÷ in the circle.
    a) \(62.57 \square 10 = 72.57\)  
    b) \(19.2 \square 10 = 192\)  
    c) \(9 \square 10 = .9\)

11. Write the decimals in order from least to greatest. Explain your answer for c).
    a) \(.37 .275 .371\)  
    b) \(.007 .07 .7\)  
    c) \(1.29 1.3 2.001\)

12. Use the number line to estimate which fraction lies in each range.
    \[
    \text{Fractions: } \frac{1}{2}, \frac{1}{3}, \frac{3}{4}, \frac{1}{10} \quad \text{Ranges:}
    \begin{array}{cccccc}
    \text{A} & \text{B} & \text{C} & \text{D} & \text{E} \\
    0 \text{ to } .2 & .2 \text{ to } .4 & .4 \text{ to } .6 & .6 \text{ to } .8 & .8 \text{ to } 1.0
    \end{array}
    \]

13. Is 6 a reasonable estimate for \(8 \times .72\)? Explain.

14. How do you know that \(10 \times 87.3\) is 873 and not 8730?

15. Change 1.25 hours to a mixed fraction in lowest terms, then to a time in minutes.
Review of Decimal Concepts

Write the matching fractions.

A 0.8 _______ 0.93 _______ 0.065 _______
B 0.004 _______ 0.05 _______ 0.021 _______

Compare the decimals. Write >, <, or = in the circles.

C 0.3 □ 0.09 □ 0.15 □ 0.51 □ 1.04 □ 1.040
D 7.16 □ 7.161 □ 9.008 □ 9.080 □ 5.071 □ 5.017

Write the numbers in order from the least to the greatest.

E 3.01 _______ F 1.79 _______ G 0.046 _______
3.11 _______ 1.7 _______
3.101 _______ 1.079 _______
3.011 _______ 1.09 _______

Round to the nearest tenth.

H 5.17 _______ 2.463 _______ 4.089 _______ 16.752 _______

Round to the nearest hundredth.

I 9.075 _______ 6.432 _______ 12.083 _______ 11.273 _______

Change the fractions to decimals.

J 13 5 64 4
100 20 1,000 25
K 1 21 15 3
8 50 24 75