Converting cm and m

Convert the following measurements into centimetres:
1) 1m
2) 1.8m
3) 3m
4) 3.7m
5) 7m
6) 7.2m
7) 11m
8) 18.2m

Convert the following measurements into metres
9) 100cm
10) 140cm
11) 400cm
12) 418cm
13) 120cm
14) 1480cm
15) 1900cm
16) 9762cm

Activity
1) Sarah says "To turn metres into centimetres, I multiply the number by 10."

Is Sarah correct? Explain your reasoning.

2) 4.5cm = ?m

3) David is thinking of a measurement in metres that is less than 1000cm. It is a decimal number with the units being half the tenths. What measurement could he be thinking of? What other possibilities are there? For each example, convert it from metres to centimetres.

4) Use <, > or = to compare the following measurements:

45cm   0.41m
12m   910cm
2.11m   201cm
110cm   1.1m
3.11m   3m 19cm

5) 1cm = 1/1000 = 0.001m

Explain what is wrong with the information above before rewriting it so it is correct.

6) Write an explanation for the most efficient way to convert between cm to m and m to cm.

7) Complete the following calculations:

42cm + 1.7m
21m + 78cm
9.4m + 34cm
123cm + 3.5m
19.2m + 315cm

8) The perimeter of a rectangle measures 320cm or 3.2m. What could the length and width measure? Give measurements in both cm and m.

9) Joanne draws a line that measures 160cm, Dave draws one that measures 1.28m and Mary draws one that measures 235cm. How long do their lines measure altogether?

Answers

Convert the following measurements into centimetres:
1) 100cm
2) 180cm
3) 300cm
4) 370cm
5) 700cm
6) 720cm
7) 1100cm
8) 1820cm

Convert the following measurements into metres
9) 1m
10) 1.4m
11) 4m
12) 4.18m
13) 1.2m
14) 14.8m
15) 19m
16) 97.62m

Activity
1) No – reasoning will discuss how turning metres into centimetres requires multiplying by 100 because 1m = 100cm

2) 4.5cm = 0.045m

3) 2.1m and 210cm, 4.2m and 420cm, 6.3m and 630cm, 8.2m and 820cm

4) Use <, > or = to compare the following measurements:

45cm > 0.41m
12m > 910cm

2.11m > 201cm
110cm = 1.1m
3.11m < 3m 19cm

5) Explanation will allude to 1cm being 1/100 and therefore 0.01m with this then being shown in the correction

6) Explanations will vary

7) Complete the following calculations:

42cm + 1.7m = 2.12m or 212cm
21m + 78cm = 21.78m or 2178cm
9.4m + 34cm = 9.74m or 974cm
123cm + 3.5m = 4.73m or 473cm
19.2m + 315cm = 22.35m or 2235cm

8) Answers will vary

9) 523cm or 5.23m