S2

Gap Topics

MP3

Contents

Metric Measure

Changing between units of length

Q1 Change the following to millimetres (mm).

1 cm = 10 mm

1).	3 cm	9).	11 cm	17).	1 cm 6 mm	25).	8 cm 1 mm	33).	13 cm 4 mm
2).	4 cm	10).	14 cm	18).	1 cm 3 mm	26).	9 cm 5 mm	34).	12 cm 8 mm
3).	1 cm	11).	12 cm	19).	1 cm 9 mm	27).	7 cm 3 mm	35).	16 cm 3 mm
4).	6 cm	12).	17 cm	20).	2 cm 1 mm	28).	6 cm 8 mm	36).	23 cm 7 mm
5).	5 cm	13).	20 cm	21).	2 cm 7 mm	29).	4 cm 4 mm	37).	19 cm 6 mm
6).	8 cm	14).	19 cm	22).	3 cm 2 mm	30).	9 cm 6 mm	38).	29 cm 2 mm
7).	9 cm	15).	25 cm	23).	4 cm 9 mm	31).	8 cm 9 mm	39).	31 cm 1 mm
8).	2 cm	16).	24 cm	24).	7 cm 6 mm	32).	6 cm 7 mm	40).	20 cm 2 mm

Q2 Change the following to centimetres (cm) and millimetres (mm) .

10 mm = 1 cm

1).	39 mm	9).	70 mm	17).	39 mm	25).	100 mm	33).	190 mm
2).	12 mm	10).	98 mm	18).	26 mm	26).	108 mm	34).	211 mm
3).	27 mm	11).	87 mm	19).	18 mm	27).	116 mm	35).	243 mm
4).	50 mm	12).	25 mm	20).	31 mm	28).	103 mm	36).	270 mm
5).	42 mm	13).	46 mm	21).	21 mm	29).	125 mm	37).	315 mm
6).	83 mm	14).	90 mm	22).	84 mm	30).	143 mm	38).	426 mm
7).	61 mm	15).	37 mm	23).	76 mm	31).	180 mm	39).	904 mm
8).	92 mm	16).	71 mm	24).	99 mm	32).	148 mm	40).	671 mm

Q3 Change the following to centimetres (cm).

1 m = 100 cm

1).	4 m	9).	10 m	17).	1 m 42 cm	25).	3 m 9 cm	33).	10 m 16 cm
2).	3 m	10).	14 m	18).	1 m 7 cm	26).	3 m 90 cm	34).	13 m 67 cm
3).	2 m	11).	19 m	19).	1 m 70 cm	27).	6 m 31 cm	35).	18 m 4 cm
4).	1 m	12).	15 m	20).	1 m 73 cm	28).	8 m 28 cm	36).	22 m 30 cm
5).	6 m	13).	21 m	21).	1 m 50 cm	29).	7 m 5 cm	37).	28 m 19 cm
6).	8 m	14).	27 m	22).	2 m 86 cm	30).	9 m 65 cm	38).	30 m 6 cm
7).	9 m	15).	35 m	23).	1 m 72 cm	31).	4 m 17 cm	39).	30 m 60 cm
8).	7 m	16).	42 m	24).	2 m 98 cm	32).	5 m 89 cm	40).	61 m 73 cm

Q4 Change the following to metres (m) and centimetres (cm) .

100 cm = 1 m

1).	126 cm	9).	247 cm	17).	498 cm	25).	1031 cm	33).	2504 cm
2).	149 cm	10).	224 cm	18).	683 cm	26).	1080 cm	34).	3007 cm
3).	100 cm	11).	341 cm	19).	823 cm	27).	1084 cm	35).	4734 cm
4).	138 cm	12).	208 cm	20).	398 cm	28).	1145 cm	36).	6280 cm
5).	108 cm	13).	390 cm	21).	806 cm	29).	1250 cm	37).	9401 cm
6).	180 cm	14).	436 cm	22).	560 cm	30).	1328 cm	38).	3792 cm
7).	165 cm	15).	732 cm	23).	703 cm	31).	1742 cm	39).	9060 cm
8).	118 cm	16).	562 cm	24).	730 cm	32).	1845 cm	40).	8342 cm

Q5 Change the following to metres (m).

1 Km = 1000 m

1).	2 Km	9).	21 Km	17).	5 Km 750 m	25).	5 Km 104 m	33).	7 Km 562 m
2).	7 Km	10).	18 Km	18).	5 Km 75 m	26).	5 Km 40 m	34).	5 Km 96 m
3).	3 Km	11).	2 Km 145 m	19).	2 Km 234 m	27).	5 Km 4 m	35).	26 Km
4).	9 Km	12).	3 Km 257 m	20).	2 Km 34 m	28).	3 Km 176 m	36).	6 Km 782 m
5).	10 Km	13).	1 Km 583 m	21).	9 Km 195 m	29).	3 Km 6 m	37).	2 Km 9 m
6).	8 Km	14).	4 Km 175 m	22).	9 Km 95 m	30).	2 Km 259 m	38).	8 Km 105 m
7).	12 Km	15).	6 Km 500 m	23).	1 Km 42 m	31).	2 Km 9 m	39).	3 Km 958 m
8).	16 Km	16).	3 Km 968 m	24).	7 Km 21 m	32).	4 Km 7 m	40).	6 Km 7 m

Q6 Change the following to kilometres (Km) and metres (m) .

1000 m = 1 Km

1).	5000 m	9).	23000 m	17).	6340 m	25).	1081 m	33).	1838 m
2).	1000 m	10).	31000 m	18).	6034 m	26).	2002 m	34).	3008 m
3).	4000 m	11).	1523 m	19).	4583 m	27).	5608 m	35).	1092 m
4).	8000 m	12).	629 m	20).	7082 m	28).	4082 m	36).	3759 m
5).	11000 m	13).	5280 m	21).	8047 m	29).	5006 m	37).	6454 m
6).	6000 m	14).	3751 m	22).	2078 m	30).	1019 m	38).	8903 m
7).	14000 m	15).	275 m	23).	4753 m	31).	3798 m	39).	9002 m
8).	19000 m	16).	9364 m	24).	9073 m	32).	3650 m	40).	6805 m

Q7 Change the following to millimetres (mm).

1 m = 1000 mm

1).	5 m	9).	21 m	17).	1 m 162 mm	25).	4 m 265 mm	33).	2 m 10 mm
2).	1 m	10).	17 m	18).	1 m 62 mm	26).	4 m 65 mm	34).	6 m 803 mm
3).	6 m	11).	1 m 462 mm	19).	2 m 721 mm	27).	4 m 5 mm	35).	7 m 6 mm
4).	3 m	12).	1 m 632 mm	20).	2 m 21 mm	28).	7 m 738 mm	36).	9 m 170 mm
5).	4 m	13).	1 m 143 mm	21).	5 m 692 mm	29).	7 m 8 mm	37).	2 m 638 mm
6).	9 m	14).	2 m 362 mm	22).	5 m 92 mm	30).	3 m 18 mm	38).	8 m 78 mm
7).	11 m	15).	3 m 735 mm	23).	4 m 58 mm	31).	5 m 3 mm	39).	9 m 703 mm
8).	14 m	16).	6 m 824 mm	24).	7 m 88 mm	32).	8 m 145 mm	40).	4 m 6 mm

Q8 Change the following to metres (m) and millimetres (mm).

1000 mm = 1 m

1).	4000 mm	9).	23000 mm	17).	1298 mm	25).	2601 mm	33).	2578 mm
2).	2000 mm	10).	34000 mm	18).	1098 mm	26).	2001 mm	34).	7003 mm
3).	7000 mm	11).	2324 mm	19).	3223 mm	27).	1706 mm	35).	6012 mm
4).	1000 mm	12).	4357 mm	20).	3090 mm	28).	7002 mm	36).	4090 mm
5).	9000 mm	13).	1862 mm	21).	2096 mm	29).	2046 mm	37).	1704 mm
6).	6000 mm	14).	7801 mm	22).	4680 mm	30).	6009 mm	38).	8007 mm
7).	11000 mm	15).	8252 mm	23).	1003 mm	31).	5908 mm	39).	9045 mm
8).	15000 mm	16).	6210 mm	24).	7303 mm	32).	5086 mm	40).	6587 mm

Changing between units of weight

Q1 Change the following to grams (g).

1 Kg = 1000 g

1). 6 Kg	9). 25 Kg	17). 1 Kg 356 g	25). 2 Kg 458 g	33). 7 Kg 403 g
2). 2 Kg	10). 44 Kg	18). 1 Kg 56 g	26). 2 Kg 58 g	34). 2 Kg 65 g
3). 7 Kg	11). 1 Kg 453 g	19). 2 Kg 582 g	27). 2 Kg 8 g	35). 5 Kg 892 g
4). 4 Kg	12). 3 Kg 362 g	20). 2 Kg 82 g	28). 5 Kg 673 g	36). 6 Kg 1 g
5). 9 Kg	13). 4 Kg 803 g	21). 6 Kg 483 g	29). 5 Kg 3 g	37). 9 Kg 807 g
6). 14 Kg	14). 5 Kg 730 g	22). 4 Kg 73 g	30). 6 Kg 84 g	38). 8 Kg 473 g
7). 5 Kg	15). 6 Kg 387 g	23). 8 Kg 548 g	31). 9 Kg 5 g	39). 9 Kg 7 g
8). 15 Kg	16). 8 Kg 638 g	24). 9 Kg 47 g	32). 4 Kg 346 g	40). 5 Kg 63 g

Q2 Change the following to kilograms (Kg) and grams (g).

1000 g = 1 Kg

1). 7000 g	9). 22000 g	17). 6098 g	25). 9721 g	33). 3908 g
2). 4000 g	10). 31000 g	18). 4128 g	26). 7012 g	34). 8894 g
3). 8000 g	11). 3524 g	19). 6053 g	27). 8005 g	35). 1092 g
4). 1000 g	12). 2727 g	20). 8560 g	28). 4002 g	36). 5560 g
5). 5000 g	13). 4782 g	21). 6072 g	29). 2091 g	37). 1809 g
6). 7000 g	14). 1908 g	22). 1059 g	30). 1709 g	38). 7003 g
7). 13000 g	15). 7351 g	23). 9033 g	31). 3090 g	39). 9032 g
8). 19000 g	16). 4716 g	24). 5420 g	32). 1006 g	40). 6932 g

Q3 Change the following to milligrams (mg).

1 g = 1000 mg

1). 4 g	5). 3 g 567 mg	9). 2 g 174 mg	13). 8 g 43 mg	17). 1 g 8 mg
2). 8 g	6). 1 g 452 mg	10). 2 g 74 mg	14). 5 g 8 mg	18). 4 g 472 mg
3). 12 g	7). 5 g 609 mg	11). 5 g 894 mg	15). 3 g 108 mg	19). 2 g 94 mg
4). 7 g	8). 4 g 945 mg	12). 7 g 19 mg	16). 7 g 9 mg	20). 7 g 5 mg

Q4 Change the following to grams (g) and milligrams (mg).

1000 mg = 1g

1).	6000 mg	5).	4559 mg	9).	9702 mg	13).	6091 mg	17).	1960 mg
2).	9000 mg	6).	2587 mg	10).	5045 mg	14).	9004 mg	18).	3095 mg
3).	15000 mg	7).	9500 mg	11).	6523 mg	15).	1007 mg	19).	2003 mg
4).	26000 mg	8).	7216 mg	12).	8072 mg	16).	2098 mg	20).	4020 mg

Q5 Change the following to Kilograms (Kg).

1 t = 1000 Kg

1).	7 t	5).	2 t 573 Kg	9).	2 t 85 Kg	13).	3 t 574 Kg	17).	5 t 946 Kg
2).	2 t	6).	1 t 306 Kg	10).	3 t 248 Kg	14).	5 t 6 kg	18).	1 t 5 Kg
3).	9 t	7).	8 t 835 Kg	11).	1 t 30 Kg	15).	3 t 90 Kg	19).	9 t 18 Kg
4).	16 t	8).	7 t 970 Kg	12).	9 t 16 Kg	16).	8 t 2 Kg	20).	5 t 230 Kg

Q6 Change the following to tonnes (t) and Kilograms (Kg).

1000 t = 1 Kg

1).	6000 Kg	5).	4305 Kg	9).	2072 Kg	13).	8001 Kg	17).	3075 Kg
2).	16000 Kg	6).	7380 Kg	10).	1935 Kg	14).	7009 Kg	18).	7005 Kg
3).	8000 Kg	7).	1592 Kg	11).	6093 Kg	15).	1087 Kg	19).	1980 Kg
4).	32000 Kg	8).	5557 Kg	12).	4072 Kg	16).	9080 Kg	20).	2060 Kg

Decimals

Adding and Subtracting of Decimals

Calculate the following:

1).	0.7 1.2 +	2).	3.7 2.2 +	3).	5.9 1.5 +	4).	7.2 4.8 +	5).	13.6 23.7 +
6).	2.5 8.9 +	7).	23.8 47.3 +	8).	42.7 35.8 +	9).	45.8 26.4 +	10).	37.9 84.5 +

11).	12.4 + 39.7	12).	45.3 + 32.7	13).	54.3 + 64.8	14).	34.5 + 0.5
15).	8.5 + 23.6	16).	34.6 + 9.7	17).	23.6 + 0.6	18).	18.7 + 6.5
19).	45.2 + 6.9	20).	36 + 3.4	21).	56.3 + 9.9	22).	59 + 12.7

23).	2.34 1.25 +	24).	3.45 4.24 +	25).	3.25 1.64 +	26).	6.72 6.39 +	27).	2.17 5.91 +
28).	4.56 3.63 +	29).	6.72 5.37 +	30).	9.45 4.58 +	31).	7.56 6.75 +	32).	4.94 6.38 +
33).	9.57 7.85 +	34).	0.56 6.7 +	35).	7.8 6.73 +	36).	5.67 4.8 +	37).	9.8 7.83 +

38).	36.56 + 6.73	39).	27.65 + 34.84	40).	64.32 + 8.3	41).	0.6 + 39.93
42).	45 + 22.76	43).	12.67 + 37.6	44).	0.9 + 3.98	45).	17 + 6.76
46).	3 + 0.78 + 12.4	47).	2.45 + 4 + 3.6	48).	4.1 + 0.08 + 6	49).	4.7 + 5.95 + 3
50).	6.46 + 4.5 + 9	51).	5 + 3.9 + 2.98	52).	3.43 + 6 + 7.5	53).	3.67 + 5.8 + 9

54).	4.4 2.3 -	55).	7.8 4.3 -	56).	7.4 6.1 -	57).	9.3 2.3 -	58).	13.7 2.3 -
59).	9.4 6.6 -	60).	8.2 4.5 -	61).	9.3 4.6 -	62).	7.1 3.7 -	63).	4.6 2.7 -

64).	12.4 - 6.3	65).	17.5 -9.2	66).	9.3 - 5.7	67).	12 - 3.6
68).	15.2 - 6.9	69).	6 - 3.4	70).	16.3 - 9.9	71).	29 - 12.7
72).	1.4 - 0.8	73).	17.9 - 9	74).	12 - 9.9	75).	24.6 - 17.7

76). 5.64 − 4.31

77). 9.56 − 7.48

78). 23.67 − 12.83

79). 45.67 − 26.53

80). 35.63 − 26.25

81). 72.35 − 34.72

82). 24.06 − 18.25

83). 17.73 − 9.3

84). 76.4 − 34.69

85). 30.06 − 18.27

86). 23.45 - 11.25
87). 9.36 - 2.18
88). 84.5 - 6.12
89). 34.56 - 28.97
90). 35 - 6.76
91). 80.01 - 36.78
92). 16.73 - 12.95
93). 14.05 - 11.99
94). 80 - 67.98
95). 40.06 - 13.98
96). 34.98 - 33.99
97). 34.6 - 23.07

Worded Questions

1). Billy goes to visit his Gran. She gives him £2.75, Grandad then gives him £4.60. How much does he get all together ?

2). Sally measures two parts of a wall. One part is 4.6 m, the other part is 3.71 m. What is the total length of the wall ?

3). Jenny has £4.36 and spends £ 2.18 at the Newsagents. How much does she have left ?

4). Bill has a plank of wood 4.63 metres long. He cuts off a length 1.72 metres. How long is the other piece of wood ?

5). Gemma measures five people in her class in metres. Here are her results 1.26, 1.41, 1.13, 1.3 and 1.07. Put the heights in ascending order.

6). Pippa does a paper round for 2 weeks. She got paid £4.89 and £3.27. How much did she earn over the two weeks ?

7). John has a five pound note. In the shop he spends £3.48. How much has he left ?

8). Amanda has six pieces of wood. Here are their lengths:- 5.2m; 5.32m; 5.4m; 5.07m; 5.13m and 5.42m. Arrange these in order of length, smallest to bigggest?

9). Bobby likes cycling. This weekend he cycled 4.8 Km and 9.34 Km. How far has he cycled in total ?

10). Hayley has a ten pound note. She spends £5.38. How much does she have left ?

11). Hazel works for six nights as a waitress. Her tips those nights are £0.85, £4.23, £2.50, £6.21, £0.42 and £5.15. How much did she earn in tips ?

Multiplication/Division by 10, 100 and 1000

Q1. Write down the answers to the following :–

a). 2·8 x 10 b). 5·6 x 10 c). 3·41 x 10 d). 10 x 8·32
e). 10 x 11·87 f). 0·86 x 10 g). 10 x 3·09 h). 10 x 0·06
i). 19·865 x 10 j). 8·302 x 10 k). 10 x 1·006 l). 0·0407 x 10

Q2. Write down the answers to :–

a). 3·82 x 100 b). 7·64 x 100 c). 100 x 1·07 d). 100 x 6·4
e). 4·256 x 100 f). 100 x 0·851 g). 100 x 0·0461 h). 0·0025 x 100

Q3. Write down the answers to :–

a). 1·832 x 1000 b). 2·070 x 1000 c). 3·92 x 1000 d). 1000 x 14·1
e). 1000 x 0·917 f). 0·0835 x 1000 g). 1000 x 1·0101 h). 1000 x 0·9004

Q4. A bag of sugar weighs 2·2 pounds. What is the weight of

a). 10 bags b). 100 bags c). 1000 bags ?

Q5. There are 1000 metres in 1 kilometre. How many metres are there in :-

a). 2·534 km b). 19·6 km c). 0·8 km d 0·004 km ?

Q6. Write down the answers to the following :–

a). 18·2 ÷ 10 b). 26·9 ÷ 10 c). 4·84 ÷ 10 d). 326·5 ÷ 10
e). 19·82 ÷ 10 f). 135·27 ÷ 10 g). 14·02 ÷ 10 h). 17 ÷ 10
i). 9 ÷ 10 j). 0·86 ÷ 10 k). 0·4 ÷ 10 l). 0·043 ÷ 10

Q7. Do the following :–

a). 923·4 ÷ 100 b). 865·12 ÷ 100 c). 64·8 ÷ 100 d). 19·04 ÷ 100
e). 620 ÷ 100 f). 831 ÷ 100 g). 9·6 ÷ 100 h). 0·2 ÷ 100

Q8. Do the following :–

a). 7364·1 ÷ 1000 b). 29 653·2 ÷ 1000 c). 8260 ÷ 1000 d). 725·1 ÷ 1000
e). 420 ÷ 1000 f). 900 ÷ 1000 g). 81·2 ÷ 1000 h). 17 ÷ 1000

Multiplication/Division by a single digit

Solve the following:

1). 3.9 × 4	2). 3.7 × 7	3). 5.4 × 3	4). 7.6 × 8	5). 13.8 × 9
6). 1.5 x 6	7). 7.6 x 3	8). 3.7 x 8	9). 12.5 x 7	
10). 9.6 x 5	11). 2.5 x 6	12). 13.6 x 2	13). 28.7 x 4	
14). 25.2 x 6	15). 16.8 x 4	16). 26.3 x 9	17). 47.3 x 8	
18). 2.95 × 6	19). 2.03 × 7	20). 6.72 × 2	21). 8.74 × 8	22). 14.74 × 5
23). 7.82 x 3	24). 9.55 x 7	25). 6.08 x 2	26). 18.73 x 5	
27). 23.48 x 4	28). 32.73 x 9	29). 18.72 x 4	30). 30.06 x 6	
31). 56.84 x 6	32). 12.63 x 8	33). 20.56 x 5	34). 67.42 x 8	
35). 3.642 × 4	36). 0.635 × 5	37). 5.403 × 3	38). 8.352 × 8	39). 11.841 × 7
40). 0.652 x 6	41). 4.524 x 3	42). 4.036 x 8	43). 12.421 x 7	
44). 7.371 x 5	45). 2.057 x 6	46). 13.604 x 2	47). 28.376 x 4	
48). 25.643 x 6	49). 26.863 x 4	50). 16.346 x 9	51). 37.372 x 8	
52). 63.217 x 5	53). 51.806 x 7	54). 42.336 x 3	55). 40.563 x 9	

Solve the following:

1). $3\overline{)74.4}$	2). $4\overline{)54.4}$	3). $6\overline{)80.4}$	4). $3\overline{)25.2}$
5). 57.2 ÷ 4	6). 49.8 ÷ 2	7). 99.4 ÷ 7	8). 83.4 ÷ 6
9). 62 ÷ 4	10). 140.1 ÷ 3	11). 205.2 ÷ 4	12). 89 ÷ 5
13). 226.1 ÷ 7	14). 492.6 ÷ 6	15). 592.2 ÷ 9	16). 539.2 ÷ 8
17). 471.5 ÷ 5	18). 574.4 ÷ 4	19). 628.8 ÷ 6	20). 956.7 ÷ 9
21). $6\overline{)127.38}$	22). $5\overline{)206.65}$	23). $3\overline{)146.01}$	24). $7\overline{)184.45}$
25). 129.84 ÷ 4	26). 188.7 ÷ 6	27). 150.01 ÷ 7	28). 258 ÷ 8
29). 407.88 ÷ 9	30). 592.27 ÷7	31). 296.01 ÷3	32). 159.6 ÷5
33). 181.44 ÷ 6	34). 456.4 ÷ 8	35). 691.38 ÷ 9	36). 273.56 ÷ 7
37). 807.12 ÷ 6	38). 952.36 ÷ 4	39). 805.36 ÷ 8	40). 879.27 ÷ 7

41). $3\overline{)76.902}$ 42). $6\overline{)84.348}$ 43). $4\overline{)94.032}$ 44). $5\overline{)82.52}$

45). $78.808 \div 4$ 46). $92.256 \div 2$ 47). $95.067 \div 7$ 48). $105.27 \div 5$

49). $207.672 \div 6$ 50). $78.54 \div 4$ 51). $489.258 \div 9$ 52). $25 \div 8$

53). $604.156 \div 7$ 54). $354.816 \div 6$ 55). $301.035 \div 5$ 56). $891 \div 8$

57). $773.16 \div 5$ 58). $898.524 \div 4$ 59). $924.018 \div 6$ 60). $979.227 \div 9$

Worded Questions

1). A cyclist travels 24.6 Km on day 1, 18.36 Km on day 2 and 47.562 Km on day 3. How far has he travelled altogether?

2). A piece of wood has to be sawed into four equal pieces. The length of the wood is 2.6 metres long. How long is each of the four pieces ?

3). A paper girl gets paid £3.65 every day. She works a 7 day week. How much does she get paid at the end of the week ?

4). A Bungalow is 3.4 metres high. It is to have an upstairs built on, which would be 3.46 metres high. How high will the new building be ?

5). Bob, Bill and Betty run a car wash. At the end of the day they have £28.62, it is to be shared out equally. How much do they each get ?

6). Five friends measure their heights. John is 1.6 metres, Jenny is 1.49 metres, Gemma is 1.62 metres, Jilly is 1.09 metres and Jim is 1.8 metres. Put their heights in ascending order.

7). Claire walks along Hadrian's Wall. The first day she walks 6 Km, the second day she walks 12.45 Km and the third day she walks 5.025 Km. How far has she walked along the wall ?

8). A tree, 6.5 metres tall, is casting too much shadow in a garden. Lynne cuts 2.86 metres off it. How tall is the tree now ?

9). In the Great North Pie Eating Championship, the weight of pies eaten determines the winner. Here are the weights of pies eaten for the four contenders.

Richard	1.2 Kg	0.85 Kg	3.042 Kg	
Billy	0.68 Kg	0.5 Kg	1.2 Kg	0.782 Kg
Mark	2.071 Kg	0.34 Kg		
Javid	1.43 Kg	2.5 Kg	0.045 Kg	

a). Work out the weights for each competitor.
b). Find the final positions in the competition.

10). Eight friends win £256.48 on the lottery. How much do they each get ?

11). Six people run the 100 metres. Here are the times. 16.08 s, 16.87 s, 16.4 s, 16.16s, 16.35s and 16.1 s. Put the runners in order fastest to slowest.

12). Eric goes on a diet. He weighed 72.5 Kg and lost 6.342 Kg. What is his new weight ?

13). Seven people form a syndicate to buy shares. The first set of shares they wish to buy cost £941.64. How much do they each have to contribute?

14). Steve is retiring. The six people in his department each give £8.65. How much can they spend on his present ?

15). Nine waiters all share their tips at the end of the evening. Here are their tips for the week.

Monday	£211.50	Tuesday	£31.86	Wednesday	£162.27
Thursday	£69.66	Friday	£270.54	Saturday	£251.10

Work out how much each waiter got for each night of the week.

16). Susan is training for the Marathon. Every day of the week she runs 15.4 Km. How far does she run each week ?

17). Bob lays block paving and gets paid by the length he puts down. He works 6 days a week.

Monday	51.5 m	Tuesday	32.25 m	Wednesday	46.72 m
Thursday	31.63 m	Friday	28.9 m	Saturday	32 m

a). Work out the total length of block paving Bob has put down this week.
b). He gets paid £1.50 per metre. How much was he paid this week ?

18). Nine people share a lottery winning of £961.83. How much do they each get ?

19). Eight other people in a lottery syndicate have been playing for three years and won absolutely nothing. Over that time the group has paid £1058 for tickets. How much has it cost each member of the group?

20). Cilla earns pocket money of £28.25 per month by doing jobs around the house. How much pocket money does she earn in a year ?

Rounding to 1 decimal place

Q1. Round each number below correct to the nearest whole number.

a) 7.1743	b) 9.78	c) 9.9756	d) 32.406	e) 26.132
f) 0.7449	g) 29.5123	h) 0.809	i) 74.2858	j) 39.9118

Q2. Round each number below correct to one decimal place.

a) 3.2343	b) 5.6878	c) 9.375	d) 12.41287	e) 16.586
f) 0.7889	g) 23.5122	h) 0.4099	i) 64.9958	j) 39.998

Q3. Round each number below correct to two decimal places.

a) 5.7383	b) 1.64478	c) 8.39775	d) 12.4133	e) 46.8186
f) 0.7339	g) 26.5182	h) 0.4093	i) 27.9911	j) 79.9966

Q4. The number π in mathematics represents the number 3.141592654……
Round this number correct to

(a) One decimal place.
(b) Two decimal places.
(c) Three decimal places.

Q5. A python is measured and its length is 6.375 metres.
Round this length correct to 1 decimal place.

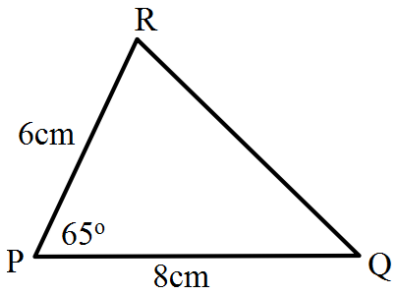
Q6. The polar bear shown weighs 722.88 kilograms.
Round this weight correct to the nearest kilogram.

Drawing Triangles

SAS Triangles

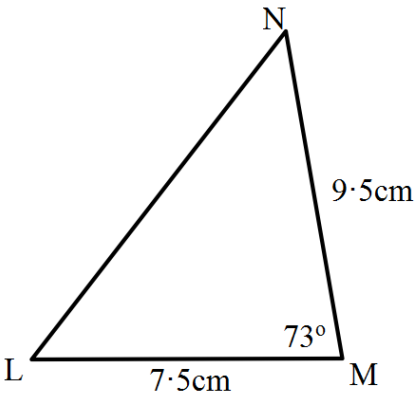
(You WILL need a ruler and a protractor for this exercise).

Q1. On the right is a rough sketch of ΔPQR.
Follow the instructions to draw it accurately:-



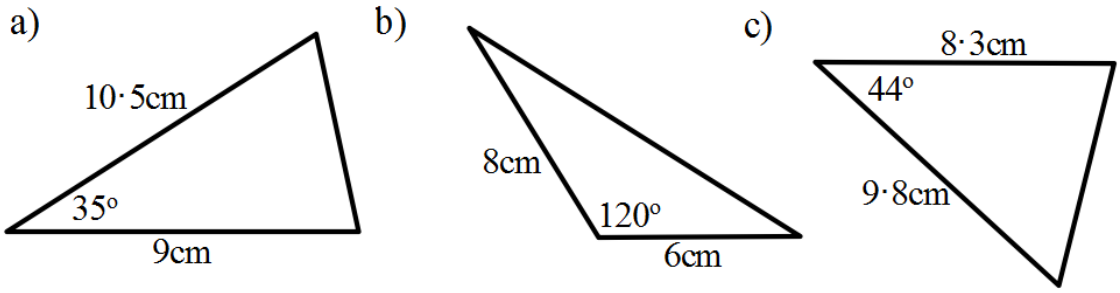
Step 1 :- Draw line PQ = 8 cm.
Step 2 :- Put your protractor at P and mark (with an X) an angle of 65°.
Step 3 :- Draw line PR, from P through the X, to point R. (Make sure it is 6 centimetres long).
Step 4 :- Join R to Q to complete the triangle.

Q2. Shown is a sketch of ΔLMN.
Draw it accurately using the following instructions:-



Step 1 :- Draw line LM = 7·5 cm.
Step 2 :- Put your protractor at M and mark (with an X) an angle of 73°.
Step 3 :- Draw line MN, from M through the X, to point N. (Make sure it is 9·5 centimetres long).
Step 4 :- Join N to L to complete the triangle.

Q3. Make accurate drawings of the following triangles:-

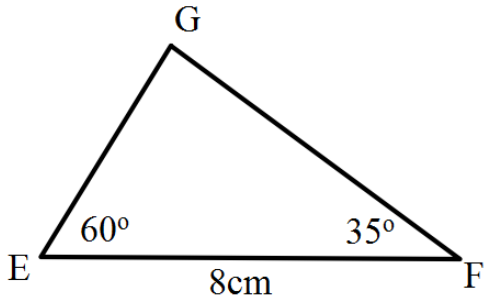


Q4. Make accurate drawings of the following triangles:-
(You might like to make rough sketches of the triangles first before drawing them).

a) Draw ΔPMN where MN = 11 cm, MP = 9 cm and ∠NMP = 50°.
b) Draw ΔRST where ST = 7·8 cm, SR = 8·3 cm and ∠RST = 77°.
c) Draw ΔWXY where WX = 95 mm, WY = 80 mm and ∠XWY = 34°.
d) Draw ΔTAN where AN = 15 cm, AT = 8·6 cm and ∠TAN = 105°.
e) Draw ΔEQJ where EQ = JQ = 10 cm and ∠EQJ = 64°.

ASA Triangles

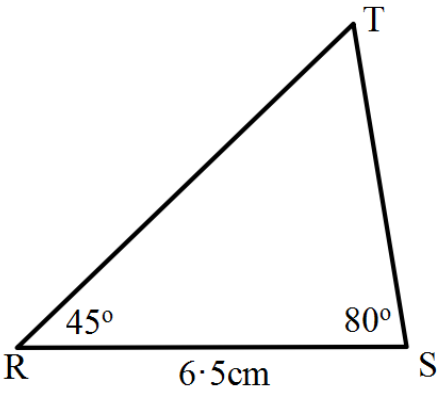
(You WILL need a ruler and a protractor for this exercise)



Q1. On the right is a rough sketch of ΔEFG.
Follow the instructions to draw it accurately:-

Step 1 :- Draw line EF = 8 cm.
Step 2 :- Put your protractor at E and mark (with an X) an angle of 60°.
Step 3 :- Draw a line from E through the X,
Step 4 :- Put your protractor at F and mark (with an X) an angle of 35°.
Step 5 :- Draw a line from F through the X, to meet your first line at point G.

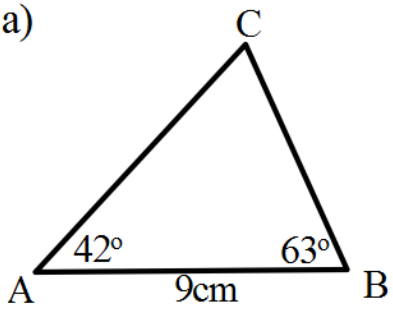
Q2. Shown is a sketch of ΔRST.
Draw it accurately using the following instructions:-



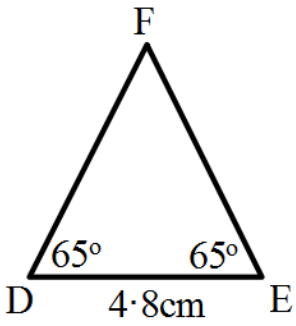
Step 1 :- Draw line RS = 6·5 cm.
Step 2 :- Put your protractor at R and mark (with an X) an angle of 45°.
Step 3 :- Draw a line from R through the point X.
Step 4 :- Put your protractor at S and mark (with an X) an angle of 80°.
Step 5 :- Draw a line from S through the point X and mark where the 2 lines cross with a T.

Q3. Make accurate drawings of the following triangles :-

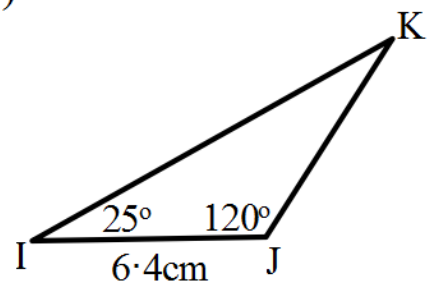
a)



b)



c)



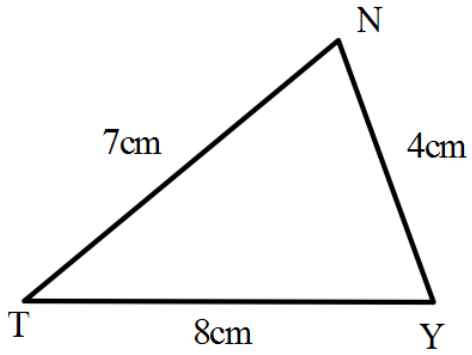
Q4. Make accurate drawings of the following triangles:-
(You might like to make rough sketches of the triangles first before drawing them).

a) Draw ΔXYZ where XY = 11 cm, ∠ZXY = 60° and ∠ZYX = 70°.
b) Draw ΔRGA where RG = 10 cm, ∠ARG = 39° and ∠AGR = 58°.
c) Draw ΔNYK where NY = 5·8 cm, ∠KNY = ∠KYN = 75°.
d) Draw ΔCTV where CT = 5 cm, ∠VCT = 27° and ∠VTC = 115°.

SSS Triangles

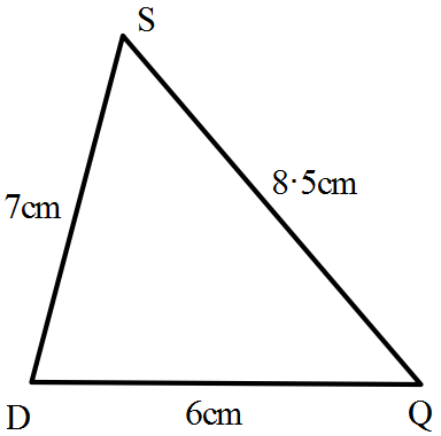
(You WILL need a ruler and a pair of compasses for this exercise)

Q1. On the right is a rough sketch of ΔTYN.
Follow the instructions to draw it accurately:-



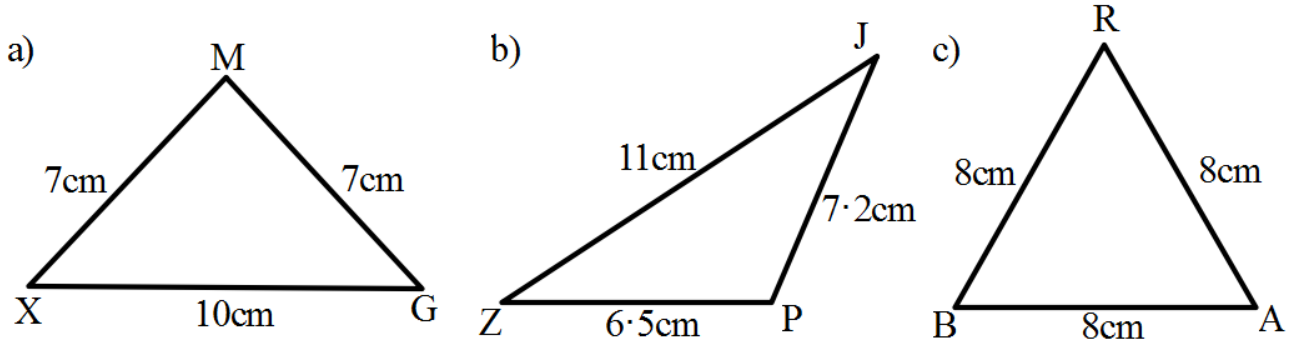
Step 1 :- Draw line TY = 8 cm.
Step 2 :- Set your compasses to 7 cm, place the compass point on T and draw a light arc.
Step 3 :- Now set your compasses to 4 cm, place the compass point on Y and draw a 2nd arc.
Step 4 :- Call the point where the arcs meet N and join N to T and to Y.

Q2. Shown is a sketch of ΔDQS.
Draw it accurately using the following instructions:-



Step 1 :- Draw line DQ = 6 cm.
Step 2 :- Set your compasses to 7 cm, place the compass point on D and draw a light arc.
Step 3 :- Now set your compasses to 8·5 cm, place the compass point on Q and draw a 2nd arc.
Step 4 :- Call the point where the arcs meet S and join S to D and to Q.

Q3. Make accurate drawings of the following triangles:-



Q4. Make accurate drawings of the following triangles :-

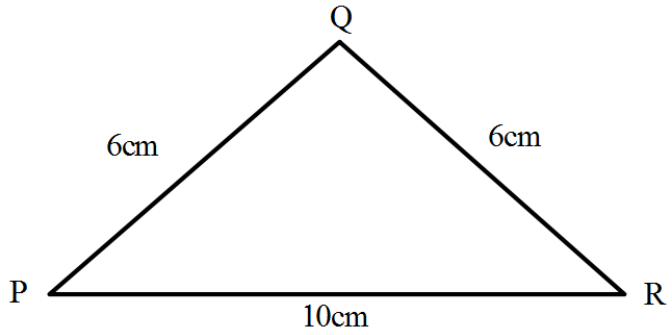
a) Draw ΔNQV where NQ = 9 cm, NV = 7 cm and VQ = 5 cm.
b) Draw ΔDXR where DX = 15 cm, DR = 9 cm and XR = 8 cm.
c) Draw ΔWHQ where WH = 10·5 cm, WQ = HQ = 6·5 cm.
d) Draw ΔSKY where SK = SY = KY = 8·5 cm. (What kind of triangle is this ?)

Mixture

Q1. Draw triangle ΔABC with
AB = 7 cm, BC = 6 cm and ∠ABC = 70°.

Q2. Draw triangle ΔDEF with
DE = 6 cm, ∠FDE = 40° and ∠DEF = 80°.

Q3. a) Make an accurate drawing of the ΔPQR shown below.

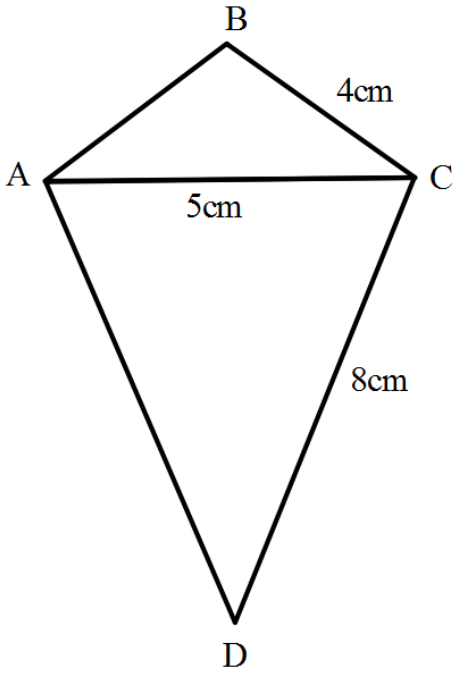


b) What kind of triangle is ΔPQR ?
c) Use a protractor to measure the size of each of the three angles.

Q4. Use a ruler and pair of compasses to draw an equilateral triangle with all three sides 6 centimetres long.

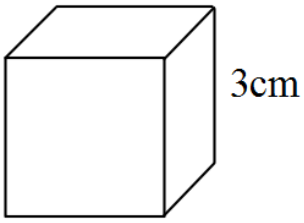
Q5. Use a ruler and compasses to make an accurate full size drawing of this kite as follows:-

a) Start by drawing AC = 5 centimetres.
b) Now draw triangle ABC, then triangle ADC using your compasses.
c) Use your protractor to measure the size of each of the 4 angles of your kite.



3D Shapes

Nets of Cubes

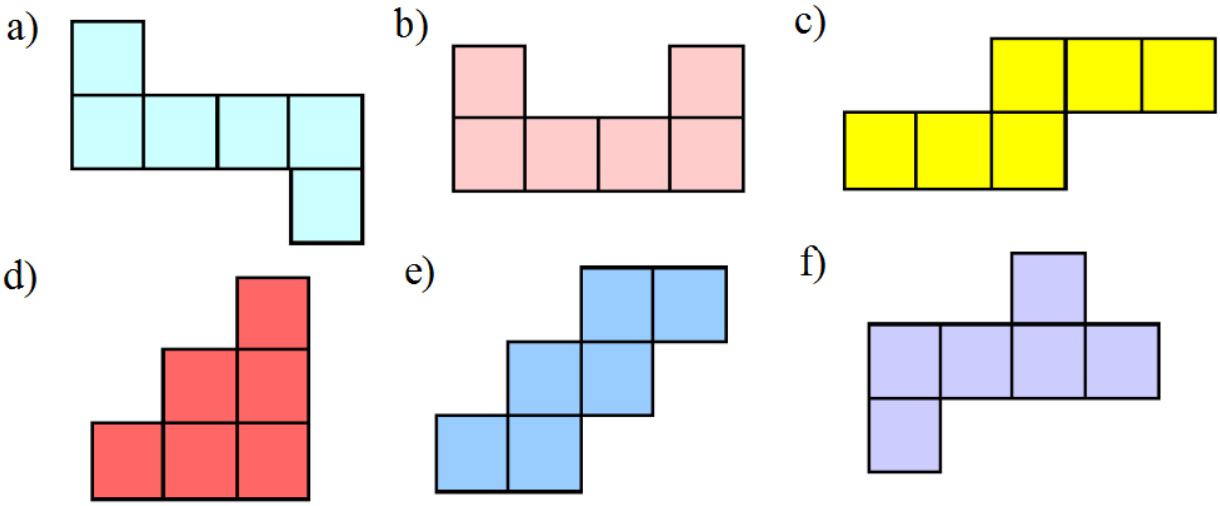


You will need squared paper and a ruler for this exercise.

Q1. Draw a full size net for a cube with sides 3 centimetres.

Q2. Draw a net of a cube with sides 1·5 centimetres.

Q3. Shown below are shapes made up of 6 congruent squares.
For each one, decide if it is the net of a cube or not.
(Drawing/tracing and cutting out may help).



4. Design a further two nets of a cube, different from any of those found in question 3.

5. Let us look at a special family of nets of cubes. Each starts with four squares in a row.

a) Decide on a simple rule where to put the other 2 square so that you will always get the net of a cube.

b) Say where you would not put the 2 squares if you wanted a cube net.

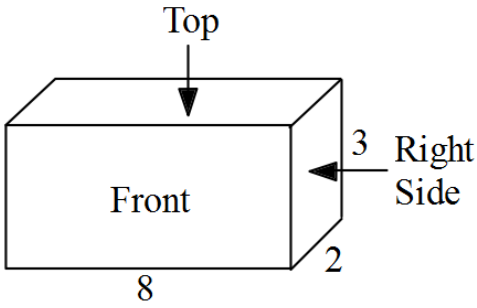
Nets of Cuboids

You will need squared paper and a ruler for this exercise.

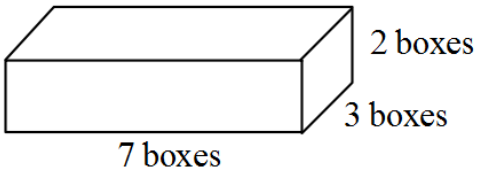
Q1. Here is part of a net of a cuboid measuring 8 by 2 by 3 (boxes).

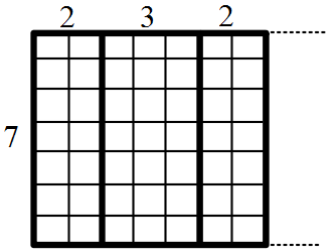
a) Copy this carefully onto squared paper and add the back and front.

b) Now add the left and right faces.



Q2. Part of the net of this cuboid is shown opposite.

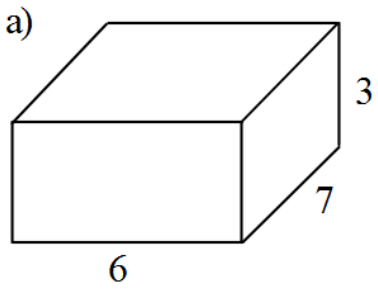


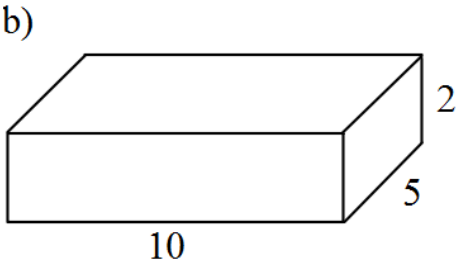


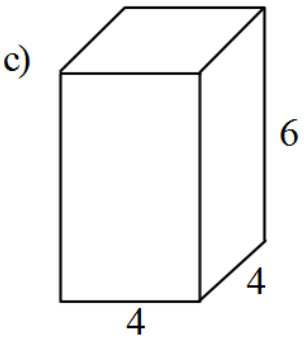
a) Make a neat full size copy of this net.

b) Complete the net showing all the faces.

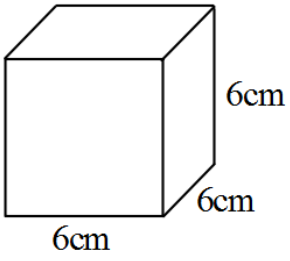
Q3. Neatly, draw nets of the following cuboids:–



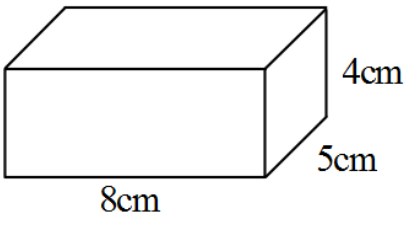




Q4. a) Draw a possible net of this cube and this cuboid on cardboard.



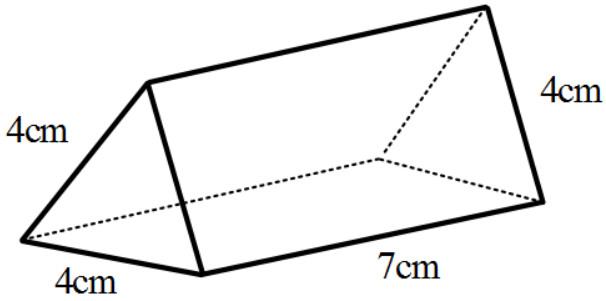
b) Cut your nets out and fold them to form solid shapes.



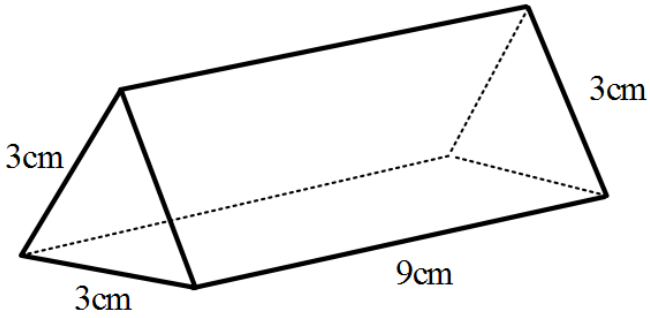
Nets of a Triangular Prism

You will need a ruler and a pair of compasses.

Q1. Draw a full size net of the triangular prism shown.



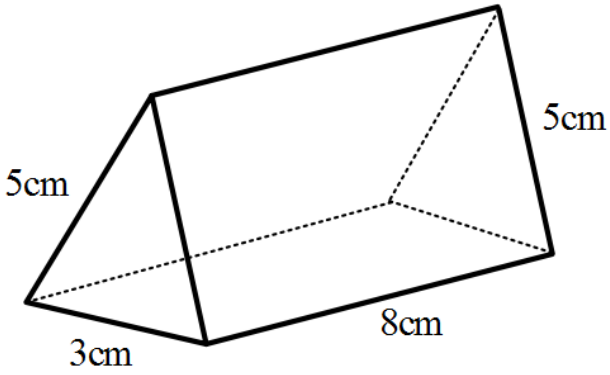
Q2. Draw the net of the triangular prism shown.
(You might like to do it on card, cut it out and sellotape it together to make the prism.)



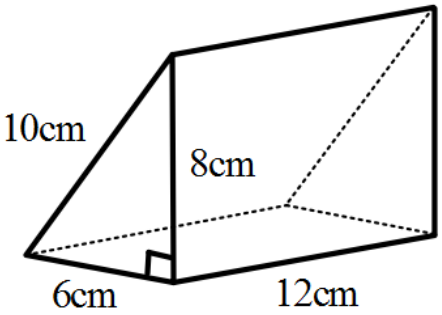
Q3. This triangular prism has its end faces in the shape of isosceles triangles.

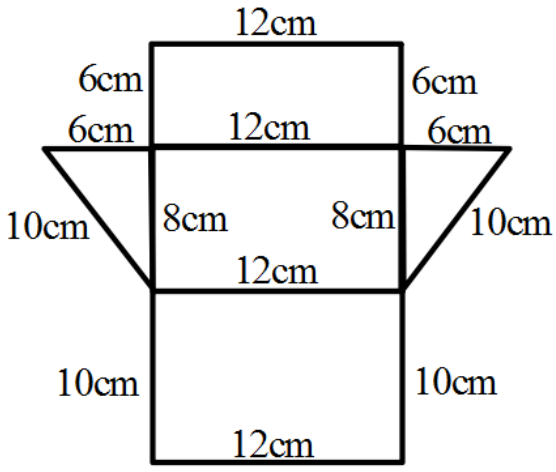
a) Write down the dimensions (the length and breadth) of each of the three rectangular faces.

b) Make an accurate drawing of its net, using your ruler and pair of compasses.



Q4. A sketch of the net of this right angled triangular prism is shown beside it.
Make an accurate drawing of the net.

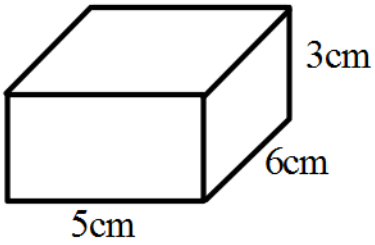




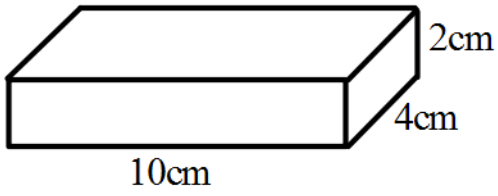
Surface Area of Cuboids

Calculate the total surface area of the following cuboids:

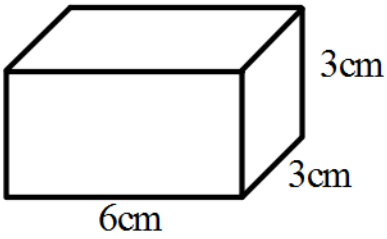
a)



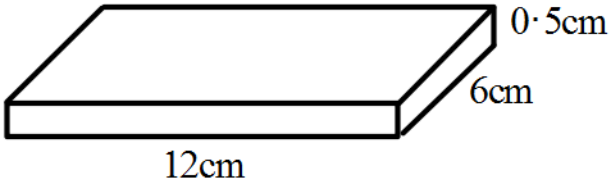
b)



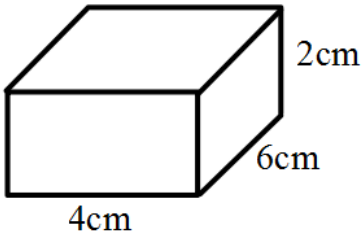
c)



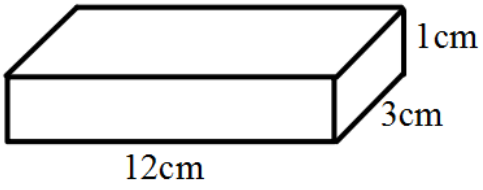
d)



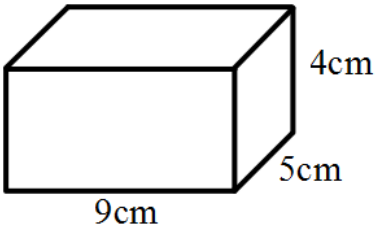
e)



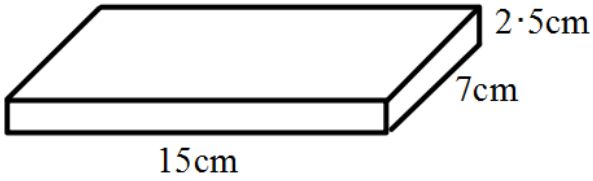
f)



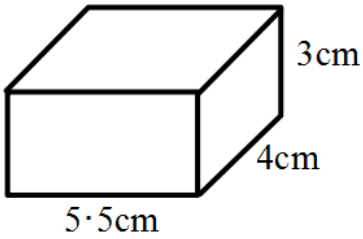
g)



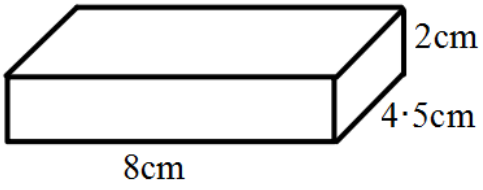
h)



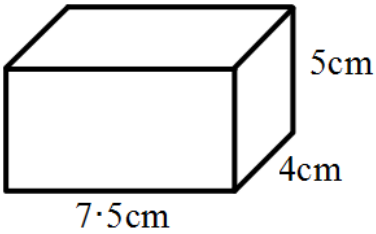
i)



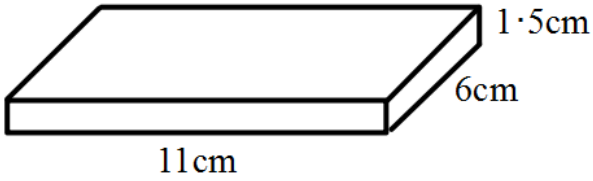
j)



k)



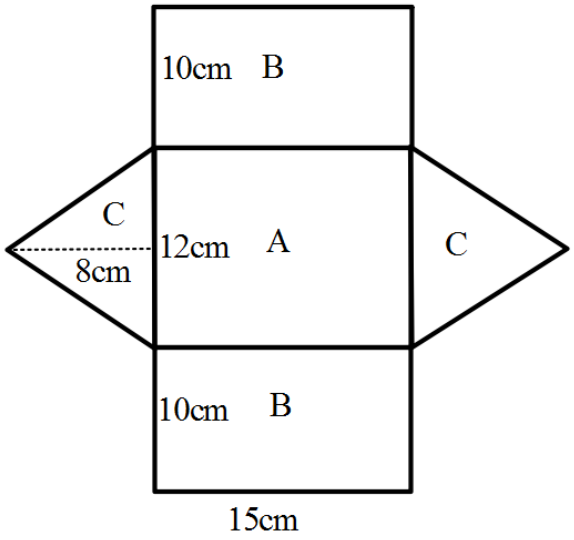
l)



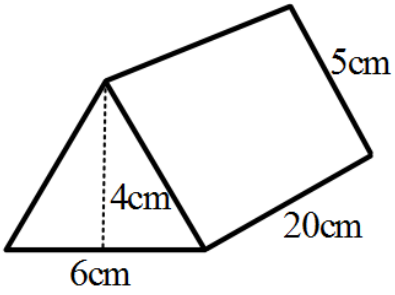
Surface Area of Triangular Prisms

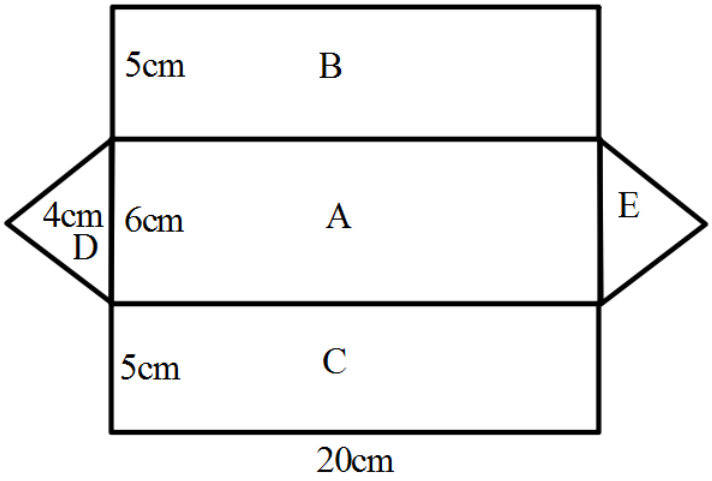
Q1. For the triangular prism shown, calculate:–

a) (i) the area of the rectangle A.
(ii) the area of rectangle B.
b) the area of triangle C.
c) the total surface area.



Q2.

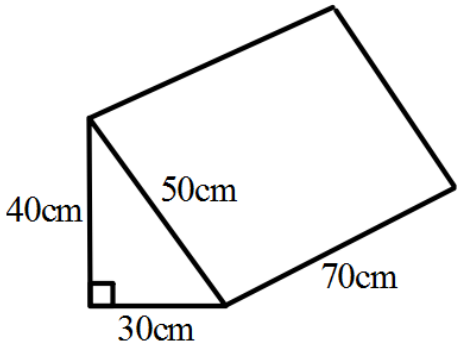


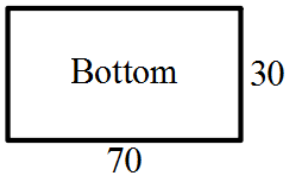


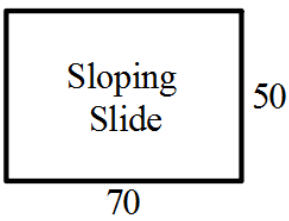
Calculate :–

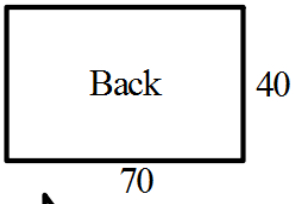
a) (i) the area of the rectangle A.
(ii) the areas of rectangles B and C.
b) the areas of triangles D and E (the same).
c) the total surface area.

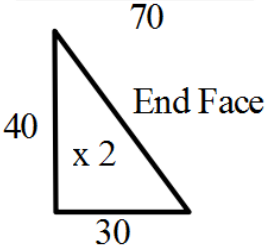
Q3. This triangular prism consists of 3 rectangles and 2 right angled triangles.











Calculate :–

a) the area of the 3 rectangles.
b) the area of the 2 right angled triangles.
c) the total surface area.

Q4. Calculate:-

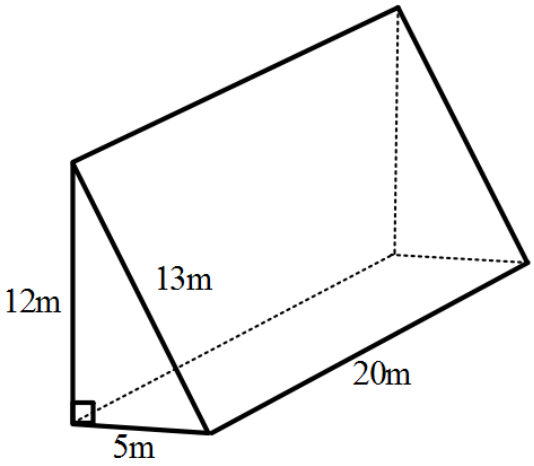
a) (i) the area of the rectangular floor.

(ii) the area of the rectangular "back".

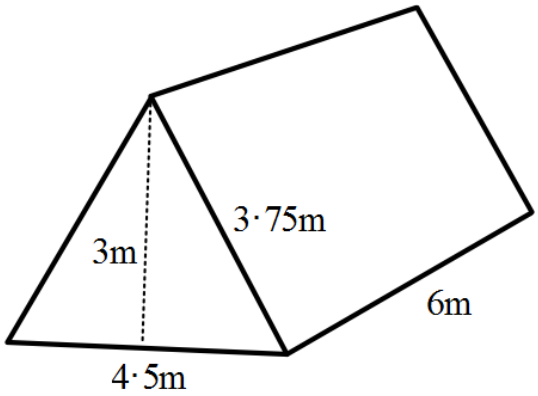
(iii) the area of the rectangular "sloping side".

b) the area of the 2 right angled triangles.

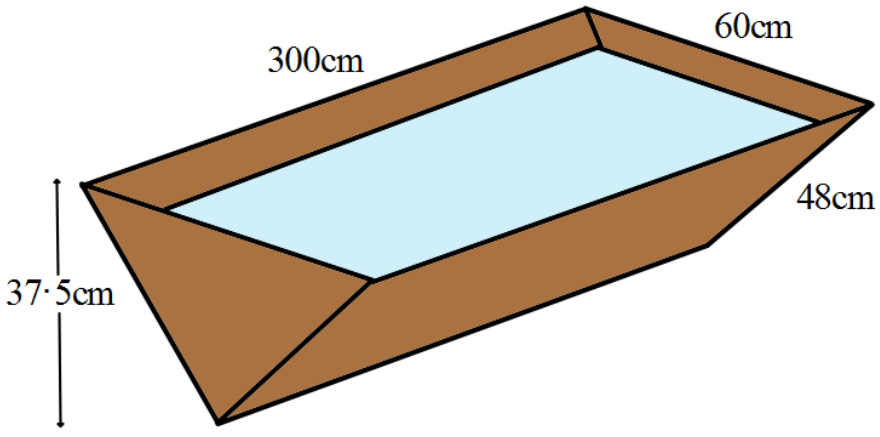
c) the total surface area.



Q5. Calculate the total area of canvas required for the ground-sheet, the 2 sloping sides that make up the roof and the 2 triangular ends of this tent.



Q6. The farmer empties pig food into this open trough. The end faces are isosceles triangles with sides 48 cm, 48 cm and 60 cm. It is 37·5 cm high and 300 cm long.



What area of wood is required to make this trough ?

(Remember – the top is open !!)