



Name: _____



1) Find the upper and lower bounds of the following lengths which have been rounded to the nearest cm:

a) 5 cm

LB: 4.5 UB: 5.5

d) 9 cm

LB: 8.5 UB: 9.5

b) 13 cm

LB: 12.5 UB: 13.5

e) 10 cm

LB: 9.5 UB: 10.5

c) 30 cm

LB: 29.5 UB: 30.5

f) 50 cm

LB: 49.5 UB: 50.5

2) Find the upper and lower bounds of the following weights which have been rounded to 1 decimal place:

a) 4.3 kg

LB: 4.25 UB: 4.35

d) 16.3 g

LB: 16.25 UB: 16.35

b) 2.8 kg

LB: 2.75 UB: 2.85

e) 14.5 oz

LB: 14.45 UB: 14.55

c) 9.5 lb

LB: 9.45 UB: 9.55

f) 7.0 mg

LB: 6.95 UB: 7.05

3) Find the upper and lower bounds of the following distances which have been rounded to 1 significant figure:

a) 8 m

LB: 7.5 UB: 8.5

d) 300 cm

LB: 250 UB: 350

b) 4 cm

LB: 3.5 UB: 4.5

e) 0.8 m

LB: 0.75 UB: 0.85

c) 50 ft

LB: 45 UB: 55

f) 0.05 km

LB: 0.045 UB: 0.055

4) Using the values given above:

 $a = 9$ $b = 8$ $c = 10$ $d = 15$ $e = 20$ $f = 85$ $g = 110$ $h = 50$ Find the **upper bound** of the expressions where the numbers given have been rounded to the nearest integer.a) $a + c$

20

c) $3d$

46.5

b) ae

194.75

d) $\frac{c}{b}$

1.4

Find the **lower bound** of the expressions where the numbers given have been rounded to 1 significant figure.e) $d + e$

29.5

g) $4e$

60

f) ah

382.5

h) $\frac{a}{b}$

1

Exam question

Chip has estimated the dimensions of his room as shown to the nearest metre.

What is the minimum perimeter that the room could be if measured accurately?



24m

