

National 4 Expressions NAB Part 1 Practice Test (3)

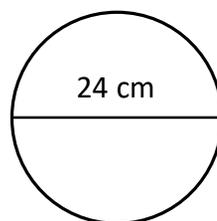
(1) Simplify  $15x + y - 6x + 4y$

(2) Expand and simplify  $7(2x + 1)$

(3) Factorise  $9x - 45$

(4) When  $g = 7$  and  $h = 5$  Find  $4g - 3h$

(5) This circle has a diameter of 24 cm



(a) Calculate the circumference of the circle

(b) Calculate the area of the circle

(6) Copy and complete the table

Tables (T)	1	2	3	4	5	.....	30
Seats (S)	3	7	11				

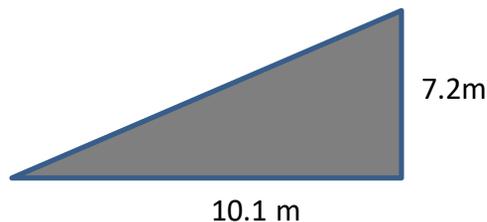
(a) Write down the formula connecting seats (S) with the tables (T)

(b) How many tables are required for 99 seats?

(7) Council regulations state that the gradient of a ramp must be no more than 0.8

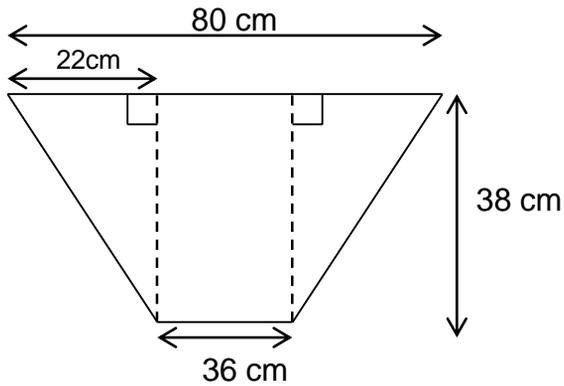
(a) Calculate the gradient of the ramp

(b) Does the ramp meet the regulations ?

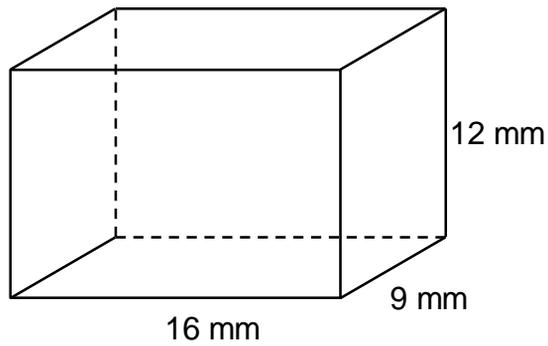


# National 4 Unit 1 Part 2 Practice Test (3)

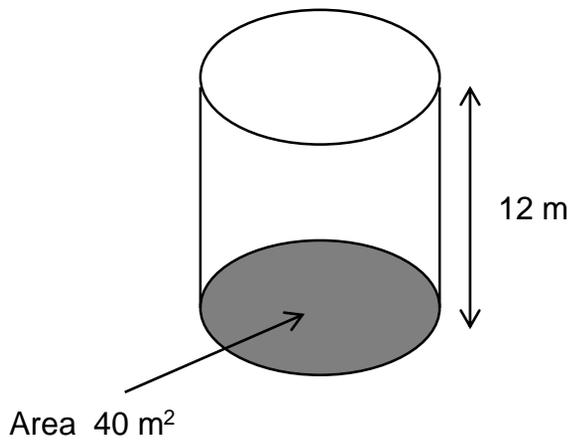
(1) Find the **area** of the following:



(2) Find the **surface area** of the cuboid

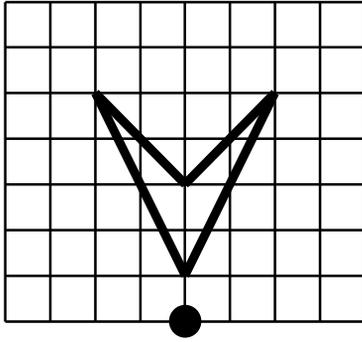


(3) Calculate the volume of the following cylinder



National 4 Unit 1 Part 2 Practice Test (3)

- (4) Rotate this shape about the centre of rotation so that it has rotational symmetry of order 4



- (5) The number of children attending a breakfast club each day were recorded as follows:

5	6	3	17	2	17	18	16	14	1
8	12	5	7	11	13	14	9	4	15
3	13	16	19	6	17	6	8	5	19

Copy and complete the frequency table for these results

Number of children	Tally	Frequency
0 - 4		
5 -		

- (8) A bag contains 8 yellow, 17 blue and 12 red sweets. What is the probability a red sweet is picked out ?

### National 4 Unit 1 Part 2 Revision (3)

(6) Stirling Drama club has eleven members. Their ages were recorded as follows:-

3    5    5    6    3    7    8    3    6

- (a) Calculate the mean of their ages
- (b) Calculate the range of their ages

Dunblane Drama club has a mean age of 4.2 and a range of 5. Make two statements comparing the data.

(7) To help with sales they research the most popular colour of shoe.

The table below shows the results:

Complete the table and draw the pie chart

Colour	Frequency	Angle at Centre
Blue	43	
Black	81	
White	56	

