LCOL BASIC SKILLS – PACK 3

Topics

Algebra – Can I solve simultaneous linear equations with 2 unknowns?					
Last Needed - 2023					
1 ► 2012 LCOL Paper 1 – Question 2 (a)					
Area, Perimeter and Volume – Can I find the volume of a cone?					
Last Needed – 2021					
2 ► 2008 LCOL Paper 2 – Question 1 (c) (i)					
Probability – Can I find the expected value of an event?					
Last Needed - 2023					
3 ► 2018 LCHL Paper 2 – Question 1 (a)					
Trigonometry – Can I find the area of a triangle given two sides and the angle between?					
Last Needed - 2023					
4 ► 2010 LCOL Paper 2 – Question 5 (a)					
Statistics – Can I construct a back-to-back stem and leaf plot?					
Last Needed - 2022					
5 ► 2012 LCOL Sample Paper 2 – Question 6 (b) (i)					
www.mathspoints.ie for worked solutions to these questions.					
LCOL Resources by Topic					
LCOL Revision – 50 Common Questions					

1 > 2012 LCOL Paper 1 – Question 2 (a)

Solve for *x* and *y*

x - y = 4

2x + y = 5



2 > 2008 LCOL Paper 2 - Question 1 (c) (i)

A wax candle is in the shape of a right circular cone.

The height of the candle is 7 cm and the diameter of the base is 6 cm.

Find the volume of the wax candle, correct to the nearest $\rm cm^3$





3 > 2018 LCHL Paper 2 – Question 1 (a)

In a competition Mary has a probability of $\frac{1}{20}$ of winning, a probability of $\frac{1}{10}$ of finishing in second place, and a probability of $\frac{1}{4}$ of finishing in third place. If she wins the competition she gets €9000. If she comes second she gets €7000 and if she comes third she gets €3000. In all other cases she gets nothing. Each participant in the competition must pay €2000 to enter.

Find the expected value of Mary's loss if she enters the competition.



4 > 2010 LCOL Paper 2 – Question 5 (a)

In the triangle *ABC*, |AB| = 6 cm, |BC| = 5 cm and $|\angle ABC| = 135^{\circ}$.

Calculate the area of the triangle, correct to the nearest square centimetre.





5 > 2012 LCOL Sample Paper 2 – Question 6 (b) (i)

The students decide to look at the heights of the males and the females in the class separately.

The heights are given below:

Construct a back-to-back stem and leaf plot of the above data.

	Males			Females	
173	180	174	167	161	160
175	178	176	157	164	172
180	171	170	168	149	161
187	176	166	167	167	171

