## JCOL BASIC SKILLS - PACK 10

## Topics

Area, Perimeter and Volume - Can I use algebra to calculate missing dimensions?
1 - 2019 JCOL Paper 1 - Question 4
Applied Arithmetic (Financial) - Can I calculate interest?
2 - 2013 JCOL Paper 1 - Question 3 (c)
Statistics - Can I draw a histogram?
3 - 2022 JCOL Paper - Question 6 (d)
Probability - Can I calculate probabilities using two-way tables?
4 - 2016 JCHL Paper 2 - Question 2 (a)
Transformations - Can I identify the image of an object under various transformations?
5 - 2018 JCOL Paper 2 - Question 7 (d)
www.mathspoints.ie for worked solutions to these questions.
$\square$ JCOL Resources by Topic
$\square$ JCOL Revision - 50 Common Questions

1 - 2019 JCOL Paper 1 - Question 4
Damien is putting a mirror on a wall. The wall is 330 cm wide and the mirror is 100 cm wide.
Damien wants to put the mirror in the middle of the wall, as shown.
Work out the value of $L$, the distance from the mirror to each end of the wall.
Wall



2 - 2013 JCOL Paper 1 - Question 3 (c)
(i) $€ 10000$ is invested at $1.5 \%$ per annum, compound interest.

What is the amount of the investment at the end of one year?

(ii) The money is left invested for a second year. How much interest is earned over the two years?

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$3-2022$ JCOL Paper - Question 6 (d)
Draw a histogram to represent the data from the frequency table.
Use the axes and scales below.

| Distance <br> jumped (cm) | $200-250$ | $250-300$ | $300-350$ | $350-400$ | $400-450$ | $450-500$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of <br> students | 10 | 15 | 25 | 32 | 10 | 3 |




## 4 - 2016 JCHL Paper 2 - Question 2 (a)

Paul is raising money for a charity in his school. He organises a fun day where one of the games is played using the spinners and the rules shown below.

(a) Complete the two-way table below to show the sum of the numbers on the two spinners.

|  |  | Spinner B |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |  |
|  | 1 |  |  | 4 |  |  |  |
| $\vdots$ | 2 |  |  |  |  |  |  |
| $\omega$ |  |  |  |  |  |  |  |
|  | 3 |  | 5 |  |  |  |  |

Each outcome in the two-way table is equally likely.
(b) Find the probability that you get €8 back if you play the game once.


5 - 2018 JCOL Paper 2 - Question 7 (d)
Seven shapes are shown on the co-ordinate diagram below.
They are labelled A, B, C, D, E, F, and G.


Complete each of the following statements correctly.
(i) Shape $\mathbf{C}$ has exactly

(ii) Shape G is the image of shape $\square$ under axial symmetry.
(iii) Shape $\mathbf{A}$ is the image of shape $\square$ under a translation.


