



**Varndean**  
College Brighton & Hove Maths



### **GCSE Higher Flying Start Pack**

In order to prepare you for your new course starting on 11th September we have put together a pack of materials for you to work on over the next week.

You should print this out, complete it and **bring it along to your first lesson.**

In addition you need to ensure you have the correct equipment at the start of the course. You will need the following **every lesson.**

File/Ring binder

Paper

Pen

Pencil

Ruler

Calculator

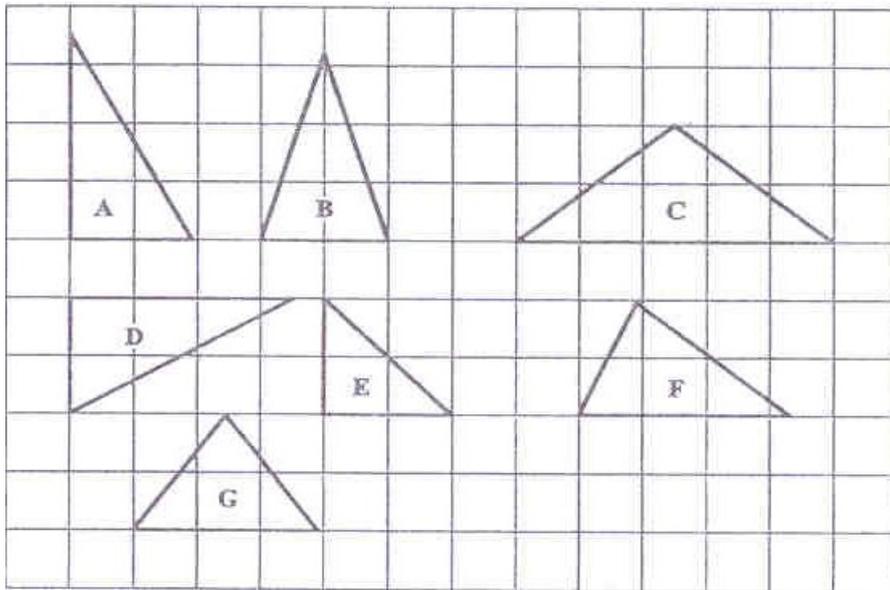
Protractor

Compass

The mathematical equipment (calculator, protractor, compass, ruler and pencil) will be available from the student shop in a handy A5 sized wallet for £6.

Good Luck we look forward to seeing you next week.

Q.1)



Two triangles are congruent.

a) which two?

b) one triangle is both right-angled and isosceles, which one?

Q.2)

Solve

$$9 - 2x = 3x - 1$$

Q.3)

a) Write 60% as a fraction.

b) And as a decimal.

Q.4)

Starting with the smallest, write the numbers below in order of size

70% ,  $\frac{3}{4}$ , 0.6,  $\frac{2}{3}$

Q.5)

A sequence is given as

3, 7, 11, 15, \_\_, \_\_, \_\_

a) find the next three terms

b) find the n-term rule for this sequence

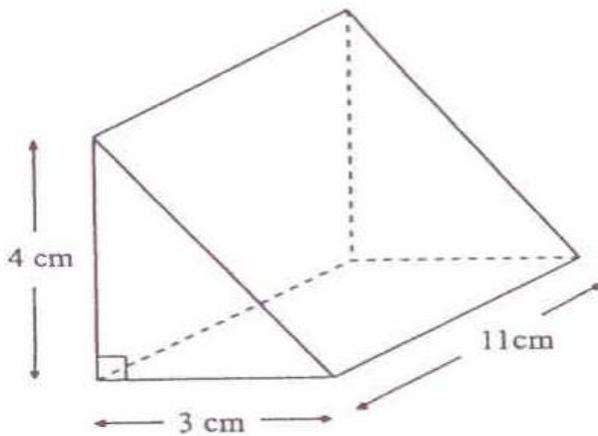
c) what is the 100th term of this sequence.

**Q.6)** Meg has a biased coin. The probability that it lands on heads is 0.4. Meg is going to spin the coin 350 times. Estimate the number of times it will land on heads.

**Q.7)** On a map, 1 cm represents 2km. What distance on the map will represent a real distance of 7km

**Q.8** In a sale, all normal prices are reduced by 15%.  
Normal price of a Jacket is £42  
John buys the jacket in the sale.  
Work out the sale price of the jacket.

**Q.9)**



Work out the volume of the prism.

**Q.10)**

Work out:  
 $1 + 2 \times 3$