**PURE MATHEMATICS 1 PAPER 1v1 AUTUMN 2020**

**TIME ALLOWED: 1 hour**

**ANSWER ALL THE QUESTIONS**

TOTAL MARKS = 42

**INSTRUCTIONS**: You can use a calculator.

You must show your method.

Answer all the questions.

You must make sure the work you present is yours and is not copied from somewhere else.

**Formulae**

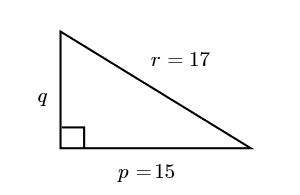
**Questions**

1. Give two examples each of
2. Proper fractions
3. Improper fractions
4. mixed fractions

[6 marks]

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1. A visitor to this country buys a bag costing £35.00 including VAT of 5%. How much VAT can be reclaimed? [4 marks]
2. Find the value of  [2 marks]
3. Rationalise [2 marks]
4. Write the equation using positive index. [2 marks]
5. Expand [2 marks]
6. Expand the expression [3 marks]
7. Rearrange the equation to make x the subject. [3 marks]
8. Solve the simultaneous equation [4 marks]
9. Find the value of q in the figure below [2 marks]



1. Write 1.09476 in
   1. 3 s.f
   2. 3 d.p [4 marks]
2. Convert [2 marks]
   1. 35 degrees to radian
   2. 1.8 radian to degrees
3. Determine all the angles between and whose sine is 0.6586. [4 marks]
4. Find the length of side BC in the figure below. [2 marks]

