## Year 7 Maths

Hannah's (7C) Practical Pythagoras' Theorem Work:
TASK 1

- Find 12 different objects in your home or garden that are rectangular.
- Firstly, measure and record two of the dimensions for each object.

PLEASE DO NOT MEASURE THE DIMENSIONS THAT ARE GREYED OUT!!!
You shall then be able to apply your skills and learning of Pythagoras' Theorem to calculate the GREYED OUT dimension.

Write down an ESTIMATE for the missing dimension, before you then...

- Use a calculator and record the exact answer (correct to 1 decimal place).

|  | WIDTH | LENGTH | DIAGONAL |
| :---: | :---: | :---: | :---: |
| TV Screen | cm | cm | Estimate is cm |
|  |  |  | Answer is cm |
| Front Door |  |  | Estimate is |
|  |  |  | Answer is |
| A window pane |  |  | Estimate is |
|  |  |  | Answer is |
| A wardrobe door |  |  | Estimate is |
|  |  |  | Answer is |
| A table top or desk top |  | Estimate is |  |
|  |  | Answer is |  |
| The front cover of a book | Estimate is |  |  |
|  | Answer is |  |  |
|  |  | Estimate is |  |
|  |  | Anmuni- |  |

## Hannah's work: TASK 1

| 1) TV Screen | WIDTH <br> 111 cm | LENGTH <br> 64 cm | DIAGONAL |
| :---: | :---: | :---: | :---: |
|  |  |  | Estimate is $125 \mathrm{~cm} \quad \mathrm{~cm}$ |
|  |  |  | Answer is 128.1 cm |
| 2) Front Door | 91 cm | 220 cm | Estimate is 232 cm |
|  |  |  | Answer is 238.1 cm |
| 3) A window pane | 75 cm | 125 cm | Estimate is 135 cm |
|  |  |  | Answer is 154.4 |
| 4) A wardrobe door | 75 cm | 195 | Estimate is 215 cm |
|  |  |  | Answer is 145.8 cm |
| 5) A table top or desk top | 105 cm | Estimate is 55 cm | 118.5 cm |
|  |  | Answer is 50 cm |  |
| 6) Front cover of a book | Estimate is 10 cm | 20 cm | 23.9 cm |
|  | Answer is 13 cm |  |  |
| 7) Bed frame | 143 cm | Estimate is 189 cm | 244.2 cm |
|  |  | Answer is198 |  |
| 8) Fish tank | 35 cm | 38 cm | Estimate is 48 cm |
|  |  |  | Answer is 51.7 cm |
| 9) Mirror | 43 cm | Estimate is 125 cm | 141.7 cm |
|  |  | Answer is 135 cm |  |
| 10) Dog calendar | Estimate is 13 cm | 42 cm | 44.6 cm |
|  | Answer is 15 cm |  |  |
| 11) Picture frame | 50 cm | Estimate is 52 cm | 74.3 cm |
|  |  | Answer is 55 cm |  |
| 12) Fire place | 74 cm | 98 cm | Estimate is 120 cm |
|  |  |  | Answer is 122.8 |



Well done Hannah, I hope you enjoyed investigating this topic in a practical way.

## TASK 2

By drawing out the shape, can you cut out the 5 pieces and fit it inside the green square:


Hannah's work: TASK 2


Fantastic work and beautifully presented!

