

DESIGN AND TECHNOLOGY BASELINE TEST

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS

<https://www.facebook.com/groups/254963448192823/>

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SURNAME _____

FORENAME(S) _____

SCHOOL _____

GROUP TEACHER _____

30 MINUTES ALLOWED

Equipment required for this examination:

- normal writing and drawing instruments
 - a calculator
 - a compass
 - coloured pencils

Instructions to candidates:

- Use a ball-point pen for writing. Use pencil / pen for drawing.
- Answer **all** questions.
- You must answer the questions in the spaces provided.
- Do all rough work in this book. Cross through any work that you do not want to be marked.

Information

- The marks for each question are displayed.
- The maximum mark for this paper is 40.

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ACCURATE DRAWING AND MEASUREMENTS

Read the questions on the left hand side of the page and answer on the right.

QUESTIONS / INSTRUCTIONS

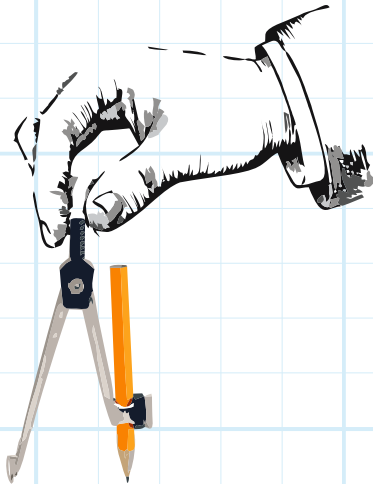
YOUR ANSWERS

1. Print your name in **BLOCK CAPITALS**, between two faint parallel, straight, horizontal lines, 10mm apart.

YOUR NAME

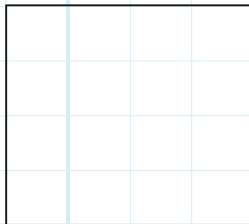
(4 marks)

2. Using a compass, draw a circle with the radius of 25mm.



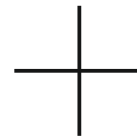
(4 marks)

3a. Using a ruler, draw a square with 40mm sides.



3b. Carefully shade the square. Starting with dark on the left and gradually getting lighter, to the right.

(4 marks)



PICTURE INSERT FOR QUESTION 4

A

LOTUS SPORT



B

RALEIGH 'CHOPPER'



C

WALKING MACHINE



ANALYSING A PRODUCT

4a. Which of the bicycles A, B or C is the oldest?

LETTER: _____

(1 mark)

Why do you think it is the oldest? *(3 marks)*

4b. Which of the bicycles A, B or C is the most interesting.

LETTER: _____

(1 mark)

Why do you think it is the most interesting? *(3 marks)*

4c. Describe ONE improvement you could make to ONE of the bicycles.

(4 marks)

LETTER: _____

CALCULATING

(Calculators permitted)

INSTRUCTIONS: In the shaded boxes are example questions and answers. You must answer the questions in the unshaded boxes.

RATIOS - YOUR EXAMPLE QUESTION AND ANSWER

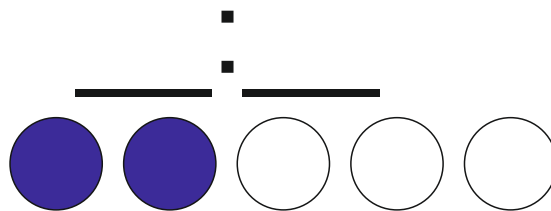
An example of a ratio is:

4:1



Here we see 4 shaded circles compared to 1 unshaded circle.

5a. YOUR QUESTION

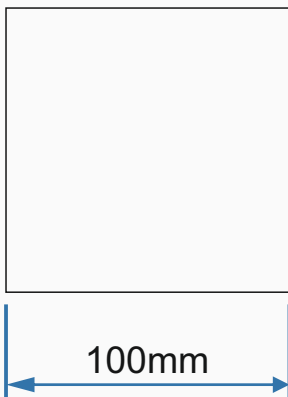


Here we see ___ shaded circles compared to ___ unshaded circles.

2 marks

2 marks

AREAS - YOUR EXAMPLE QUESTION AND ANSWER



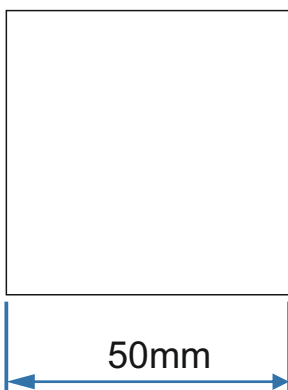
Calculate the area of the square shown opposite. The length of one side is 100mm

$$\text{AREA} = X^2$$

$$\text{AREA} = 100\text{mm} \times 100\text{mm}$$

$$\text{AREA} = 10000\text{mm}^2$$

5b. YOUR QUESTION



Calculate the area of the square shown opposite. The length of one side is 50mm

$$\text{AREA} = X^2$$

$$\text{AREA} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

2 marks

$$\text{AREA} = \underline{\hspace{4cm}}$$

2 marks

DESIGN AND IMAGINATION

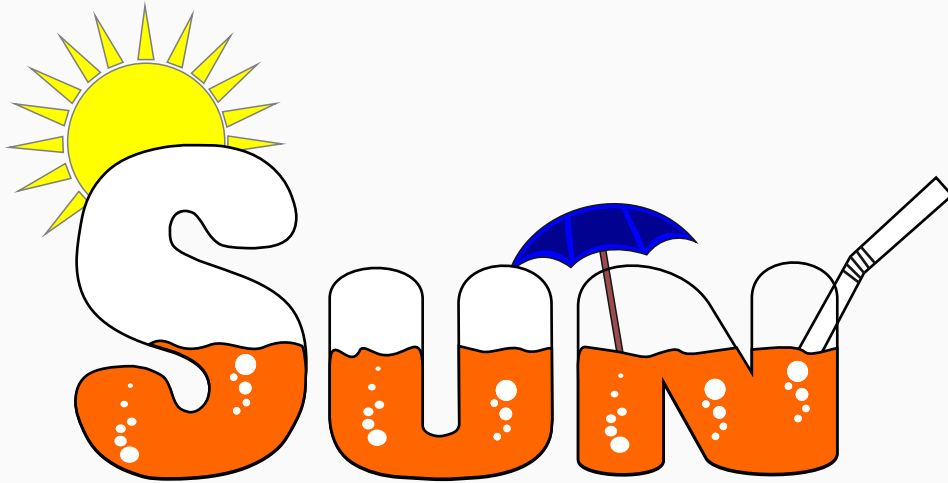
6. The example answer below, shows the word 'SUN', drawn in an artistic way. Colour and images that reflect the meaning of sun and sunny days, have been included, as an aspect of the design.

You are to convert the word 'WINTER', so that it is presented artistically. Your design should include: colours and images that reflect the meaning of the word.

(8 marks)

EXAMPLE ANSWER

SUN



YOUR QUESTION

WINTER