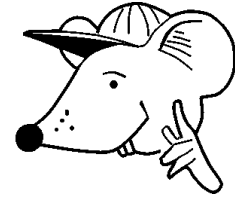


MATHEMATICS



NCT Practice Paper No: 3

Key Stage 2

Levels 3 - 5

Test A

Calculator Not Allowed

Equipment: Tracing paper, protractor.

MathSphere

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MATHEMATICS

Key Stage 2

TEST A

Levels 3 - 5

Calculator Not Allowed

| Page | Marks | Page | Marks |
|--------------|-------|------|-------|
| 4 | | 10 | |
| 5 | | 11 | |
| 6 | | 12 | |
| 7 | | 13 | |
| 8 | | 14 | |
| 9 | | | |
| TOTAL | | | |

**First Name****Last Name****Name of School**

INSTRUCTIONS

You may **not** use a calculator to answer the questions.

Always work as quickly as you can.

Do not waste time on one question. Go on to another question if you find one difficult.

Always check your work if you have time at the end.

Time allowed for this test: **45 minutes.**

A large box like this means you must show your working:

Show your working



1. Here are three number cards.



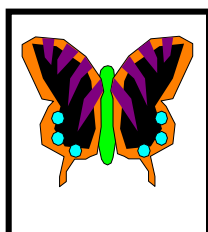
a) What is the largest number that can be made with these cards?

b) Arrange the cards to make a number between 200 and 300.

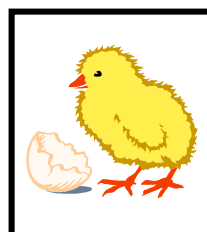
2.



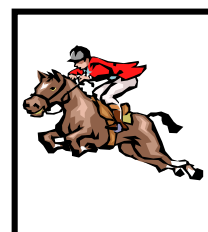
Card A 85p



Card B 65p



Card C 90p



Card D 35p

Carol wanted to buy some birthday cards for her friends.

She paid **£1.50** for two cards.

Which cards did she buy?

Card

and Card

3. Sam went to an ants nest in the woods and put out **four** saucers.

One saucer was filled with **cream**.

One saucer was filled with **sugar water**.

One saucer was filled with **honey**.

One saucer was filled with **salt water**.

He counted the number of ants that came to each saucer in one hour. He recorded the results as a tally.

| Saucer | Tally | Number |
|-------------|-------|--------|
| Cream | | 25 |
| Sugar water | | |
| Honey | | |
| Salt water | | |

a) Fill in the last column of the table. One has been done for you.

b) How many ants were there altogether?

c) How many **fewer** ants went to the **salt water** than the **sugar water**?

4. Here is part of a multiplication table.

| | | | |
|----|----|----|----|
| | 28 | 32 | |
| 30 | 35 | | 45 |
| | 42 | 48 | |
| | | | |

Fill in the **three** missing numbers.

5. a) Liz spends **£3.50** on magazines.

How much change would she get from a **£5** note?

£

b) Josephine buys **one** magazine costing **£1.18** and **one** costing **£1.75**.

How much change would she get from a **£10** note?

Show your working.

£

6. Michelle's mother gets a computer token for every **£10** she spends in GoWest supermarket. She collects **83** tokens.

What is the smallest amount of money she needed to have spent to get the **83** tokens?

£

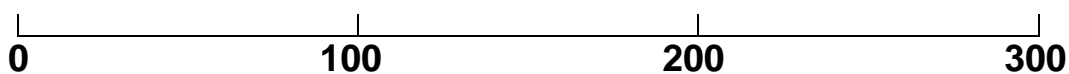
7. Nazir thinks of a number. She says "If I **subtract 23** from my number, the answer is **42**."

What was Nazir's number?

8. This toy dinosaur has a mass of **280g**.



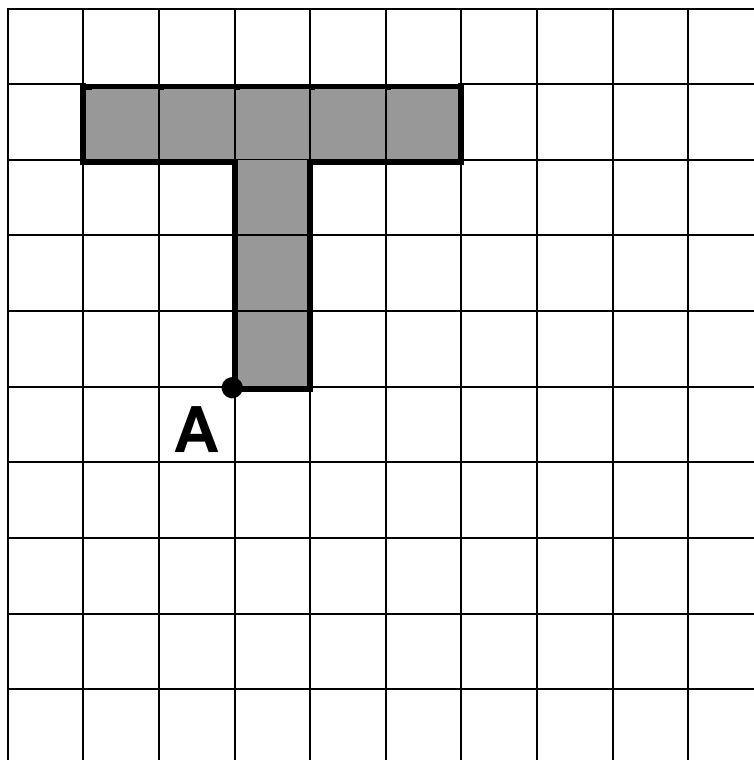
Put an arrow on the scale to show **280g**.



9. Write the missing digits in the shaded squares:

| | | | |
|-------|---|---|---|
| | 3 | 6 | |
| + | 2 | | 8 |
| <hr/> | | | |
| | | 0 | 5 |
| <hr/> | | | |

10.



Rotate the shaded shape one right angle about point **A** clockwise.

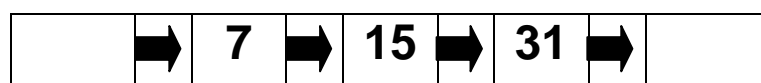
Draw the new shape. You may use tracing paper.

11. a) What is the rule for making this pattern of numbers?



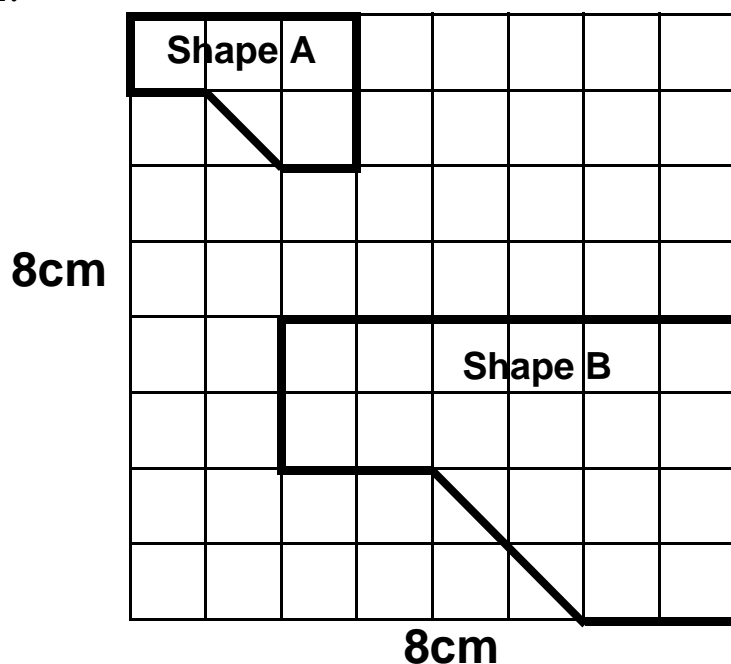
Rule: _____

b) The rule for this sequence is "double and add one".



Fill in the **two** missing numbers.

12.

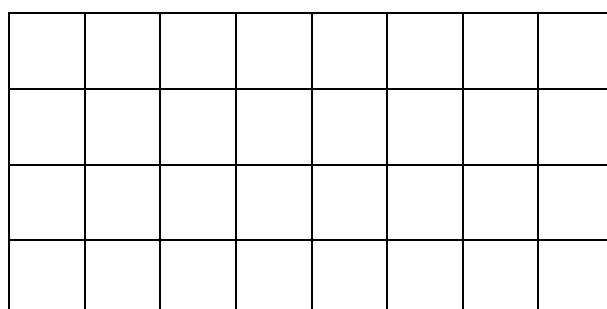


a) What is the area of **shape A**?

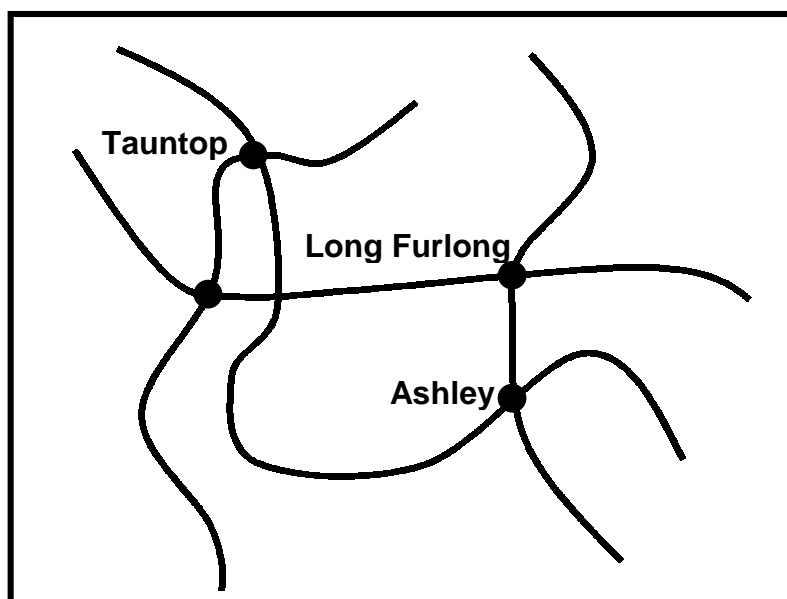
b) How many times is the **area** of **shape B** bigger than the **area** of **shape A**?

c) Draw a line across **shape B** to divide **shape B** into two shapes of **equal area**. Your line does not have to be straight.

d) On the grid below, draw a shape with a **perimeter** of **10 units**.



13.

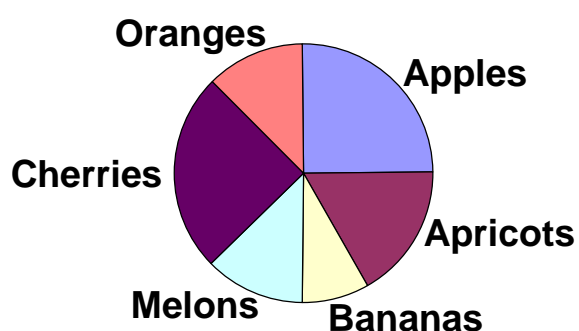


The scale of this map is **1 centimetre to 8 kilometres**.

The road from Tauntop to Ashley measures **7.2cm on the map**.

What is the real length of the road in **kilometres**?

14.



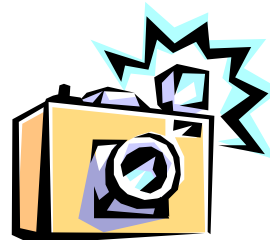
This pie chart shows the fruits liked by **100 children**.

a) Estimate how many children liked Apples.

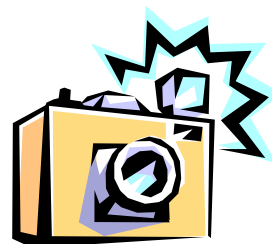
b) Estimate how many children liked Melons.

c) Which two fruits were the most popular?

15. A **clock** and a small **camera** cost **£18.00**



Two clocks and a **camera** cost **£23.50**



What does the **camera** cost?

£

Explain how you got your answer.

16. Calculate 527×45

Show your working

17. Here is a rough drawing of a right angled triangle:



Draw the triangle accurately and full size in the space below.

Measure the length of the longest side as accurately as you can.

Longest side =

cm

- 18.** Here is a **magic square**. All the numbers in each row or column add up to the same number.

Write in the missing number

| | | |
|--------------|--------------|--------------|
| 19.28 | 7.23 | 9.64 |
| 2.41 | 12.05 | 21.69 |
| 14.46 | 16.87 | |

- 19.** The temperature is measured at noon in several cities.

Here are the results:

| Temperature ⁰C | |
|----------------------------------|------------|
| Sidney | 22 |
| Moscow | -16 |
| Toronto | -4 |
| Capetown | 28 |
| San Francisco | 4 |
| Cairo | 35 |

- a) What is the difference in temperature between **Sidney** and **Moscow**?

- b) How much would the temperature need to rise in **Toronto**, so it was the same as in **San Francisco**?

20. **n** represents a number.

Put a ring around **True** or **False** for each of the statements:

a) $2n$ is the same as $n \times n$

True/False

b) $n + n + 7$ is the same as $2n + 7$

True/False

c) $2 - n$ is the same as $n - 2$

True/False

d) If $n = 4$, then $3n = 7$

True/False

e) If n is twice 8, then n is 16

True/False

f) If $n = 2.5$, then $4n = 10$

True/False

End of Test



Now check your work carefully,
please!

Answers

| Answer | Mark | Answer | Mark |
|-------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1. a) 652 b) 256 or 265 | 1 1 | 12. a) $4\frac{1}{2} \text{ cm}^2$ b) 4 c) Any correct line d) Any correct shape such as 4×1 rectangle. | 1 2 1 1 |
| 2. A and B | 1 | 13. 57.6 Km | 1 |
| 3. a) Table column 25 18 28 7 b) 78 c) 11 | 1 1 1 1 1 1 | 14. a) 25 approx b) 12 ± 2 c) Apples and Cherries | 1 1 1 |
| 4. 40 54 56 | 1 1 1 | 15. £12.50 Any correct explanation. | 2 1 |
| 5. a) £1.50 b) £7.07 | 1 Working 1 Answer 1 | 16. 23 715 | Max 2 |
| 6. £830 | 1 | 17. Accurate drawing 10.4cm \pm 0.1cm 10.4cm \pm 0.3cm | 1 2 1 |
| 7. 65 | 1 | 18. 4.82 | 2 |
| 8. Correct position of arrow (\pm a little) | 1 | 19. a) 38°C b) 8°C | 1 1 |
| 9. 7 3 6 | Max 2 | 20. a) False b) True c) False d) False e) True f) True | Max 4 Less 1 for each mistake. |
| 10. Correct position Correct orientation | 1 1 | | |
| 11. a) Divide by three b) 3 63 | 1 1 1 | TOTAL | 50 |