11+

Practice Test

Set B: Paper 2

Read the following:

Do not open this booklet or start the test until you are told to do so.

1. This test can be taken in either multiple-choice or write-in format.
2. If you are taking it as a multiple-choice test you should mark your answer to each question in pencil on the separate answer sheet. Mark the correct box quickly and neatly using a horizontal line.
3. If you are taking it as a write-in test you should write your answer to each question in pencil on the paper. Write your answer carefully in the space provided or, if there is a range of options, mark the correct box quickly and neatly using a horizontal line.
4. If you make a mistake, rub it out and mark your new answer clearly.
5. There are three sections in this test.
6. The time allowed for each section is given at the start of that section. You will have a total of 45 minutes to complete the timed sections of the test.
7. Each section includes examples showing you how to answer the questions. You may refer to these examples at any time as you work through the section.
8. Do as many questions as you can. For some questions you will be given a range of options — if you get stuck on one of these questions, choose the answer that you think is most likely to be correct, then move on to the next question. If you get stuck on a question for which no options are given, leave it and move on to the next question. If you have time at the end of the section, go back and have another go at the questions you could not answer.
9. You should do any rough working on a separate piece of paper.

Work carefully, but go as quickly as you can.

SECTION 1: NUMERICAL REASONING

EXAMPLES EXAMPLES EXAMPLES EXAMPLES EXAMPLES EXAMPLES

READ THESE EXAMPLE QUESTIONS. YOU MAY RETURN TO THESE EXAMPLES AT ANY TIME AS YOU WORK THROUGH THIS SECTION.

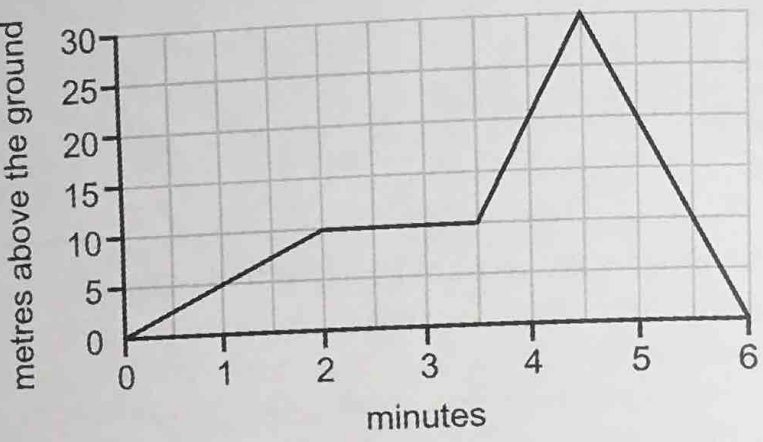
A Which of the following fractions is largest: $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$

☐ ☐ ☐ ▬

B Michelle bought a book for £6.99 and a pen for 76p.
How much did she spend?

£ 7 . 7 5

C George draws a graph showing a flight by his remote-control model plane.



C1 How long did the flight last?

6 minutes

C2 How high was the plane after 4 minutes of flight?

2 0 m

C3 According to the graph, what was the plane doing between 3½ and 4½ minutes of flight?

speeding up	rising	slowing down	falling
☐	▬	☐	☐

WAIT UNTIL YOU ARE TOLD TO GO ON

YOU HAVE 32 MINUTES TO COMPLETE THIS SECTION

THERE ARE 11 QUICK QUESTIONS AND 9 MULTI-PART QUESTIONS IN THIS SECTION.

1. $300 - \square\square\square = 120$

2. $18 + \square\square = 50$

3. $9 \times \square\square = 540$

4. Which of the these fractions is equivalent to $\frac{3}{12}$: $\frac{3}{4}$ $\frac{2}{3}$ $\frac{1}{4}$ $\frac{1}{2}$
   $\square$ $\square$ $\square$ $\square$

5. Which of the following fractions is smallest: $\frac{15}{18}$ $\frac{7}{9}$ $\frac{5}{6}$ $\frac{2}{3}$
   $\square$ $\square$ $\square$ $\square$

6. Helen bought a sandwich for £2.29 and a bottle of water for 89p. How much did she spend? £$\square\square$.$\square\square$

7. Alexander had 12 bars of chocolate. He gave one third of them to his sister. How many did Alexander have left? $\square$

8. In a supermarket, Shazia's shopping comes to £32.17. How much change should she get from £40? £$\square\square$.$\square\square$

9. Apples cost 54p each. Isaac has £4. How many apples can he buy? $\square$

For each of these formulas, find the value of y when $x = 5$.

10. $y = x^2 - 6$ $y = \square\square$

11. $y = 9(x - 1)$ $y = \square\square$

GO TO THE NEXT QUESTION

12 A café sells four different drinks.
The pictogram shows how many of each type they sold on a Saturday.

Type of drink	Amount sold on Saturday
Coffee	
Tea	
Hot chocolate	
Milk	

KEY

 = 5 cups

a) How many cups of tea did the café sell?

☐☐ cups

b) How many more cups of milk than hot chocolate were sold?

☐☐ cups

The price of a cup of coffee in the café is £1.20.

c) How much money did the café take from sales of coffee on Saturday?

£☐☐.☐☐

Tea costs 90 p per cup and hot chocolate costs £1.40 per cup. Henry and his friends ordered two cups of tea, two cups of hot chocolate and one cup of coffee.

d) How much did they spend in total?

£☐.☐☐

13 Look at this bus timetable.

Cathedral	09:30	10:15	11:00
Castle	09:47	10:32	11:17
Seafront	10:05	10:50	11:35
Park	10:20	11:05	11:50
High Street	10:46	11:31	12:16
Cathedral	11:00	11:45	12:30

a) How often do the buses run?

Every ☐☐ minutes

b) How many **minutes** does the complete round trip from the cathedral and back again take?

☐☐ minutes

c) I arrive at the castle at 10:40. When will the next bus arrive at the castle?

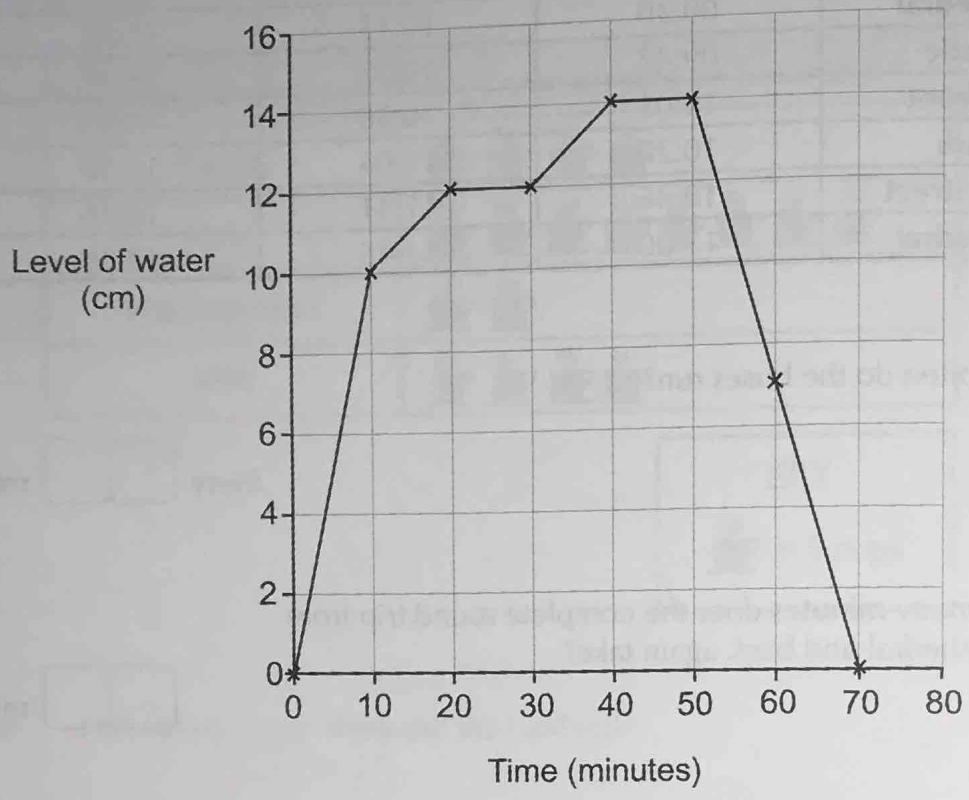
☐☐:☐☐

d) I need to be in the High Street at 11:40.
What is the latest bus I can catch from the seafront to arrive in time?

☐☐:☐☐

GO TO THE NEXT QUESTION ⇨

(14) Jake has a bath. Here is a line graph to show the level of water in the bath.



a) What was the highest level of bathwater?

☐☐ cm

b) Estimate for how long the bathwater was deeper than 12 cm.

☐☐ minutes

c) After how many minutes did Jake take the plug out of the bath?

☐☐ minutes

15 The opening times for a theme park are shown below.

Wild Rides Theme Park

Opening Times

September – February	weekends only	10:00 am to 4:30 pm
March – April	every day	9:30 am to 5:00 pm
May – August	every day	9:30 am to 7:30 pm

Last admissions: 1½ hours before closing time

a) What is the latest time of entry to the theme park in August?

☐☐:☐☐ pm

b) For how many months of the year is the theme park closed on weekdays?

☐ months

c) John visits the theme park one Saturday in December. He arrives at opening time, and leaves half an hour before it closes.

How long does he spend at the theme park?

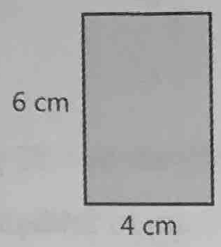
☐ hours

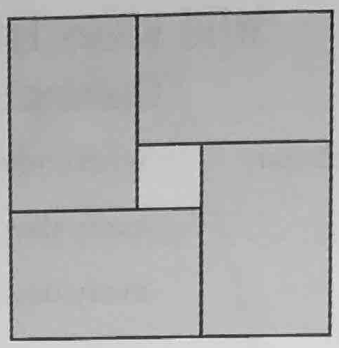
d) Joe works at the theme park every day for a week in May (including the weekend). He starts work half an hour before the theme park opens, and finishes work 1½ hours before it closes.

How many hours does he work altogether?

45 hours	54 hours	63 hours	72 hours
☐	☐	☐	☐

16 Here is a rectangular tile.
A pattern is made using 4 of these tiles.





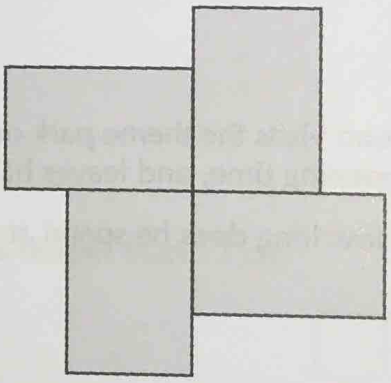
a) What is the perimeter of the square left empty in the middle?

☐ cm

b) What is the perimeter of the outer edge of the design?

☐☐ cm

The tiles are rearranged into a new pattern:



c) The perimeter of the outer edge of the new pattern is:

smaller than for the first pattern	the same as for the first pattern	larger than for the first pattern
☐	☐	☐

(17) Holly has a recipe for potato salad. The recipe serves 4 people.

150 g	potatoes, peeled and chopped
½	onion, peeled and chopped
20 ml	mayonnaise
40 g	cheese, grated

Holly wants to make enough potato salad for 16 people.

a) How many onions does she need?

☐ onions

When Holly weighs her potatoes, she finds she has 450 g.

b) What is the largest number of servings of potato salad she can make?

☐☐ servings

Celeste has 50 ml of mayonnaise.

c) How much cheese will she need if she makes a potato salad using all of her mayonnaise?

☐☐☐ g

Helen decides to replace the onion in the recipe with chopped radishes. For every onion in the recipe, she uses four radishes.

d) How many radishes will she need if she makes enough potato salad for 6 people?

☐ radishes

GO TO THE NEXT QUESTION

18 Janet sells decorated boxes filled with chocolates.

The Perfect Gift

Decorated boxes: £1.50 each

Chocolates: 8p each

Sally paid £2.22 for a decorated box and chocolates.

a) How many chocolates did Sally buy?

☐ chocolates

Janet decides to increase the price of chocolates by 25%.

b) How much does each chocolate cost now?

☐☐ p

Janet decides to increase the price of decorated boxes by 10%.

c) How much does each decorated box cost now?

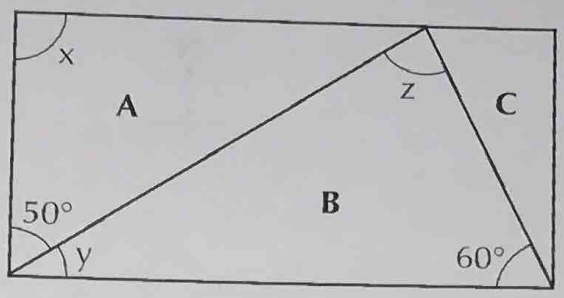
£☐.☐☐

Peter wants to buy a decorated box filled with chocolates.
He has £3 to spend.

d) At the new prices, what is the largest number of chocolates he can have in his box?

☐☐ chocolates

19 The rectangle below has been split into three triangles.



a) What type of triangle is triangle A?

equilateral ☐ isosceles ☐ right-angled ☐

b) What is the size of angle x?

☐☐ °

c) Work out the size of angle y.

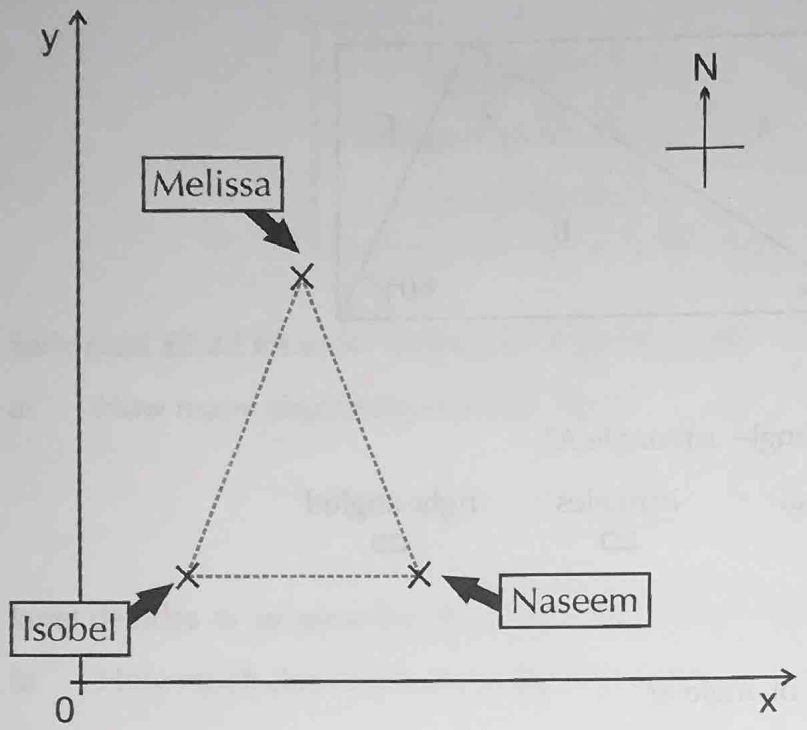
☐☐ °

d) Work out the size of angle z.

☐☐ °

GO TO THE NEXT QUESTION

20 Isobel, Melissa and Naseem are doing a treasure hunt. This is their map.



Isobel, Melissa and Naseem's locations form an isosceles triangle.
Isobel is at (2,2) and Melissa is at (4,7).

a) Write down the coordinates of Naseem's location.

(☐ , ☐)

Ben joins the treasure hunt. He starts 4 units east of Melissa.

b) What are Ben's coordinates?

(☐ , ☐)

The treasure is located at (5,4).

c) Who is closest to the treasure?

Isobel	Melissa	Ben	Naseem
☐	☐	☐	☐

Isobel, Melissa and Ben all walk in a straight line to meet Naseem.

d) Which two people walk the same distance?

Isobel & Melissa	Melissa & Ben	Ben & Isobel	They all walk a different distance.
☐	☐	☐	☐

STOP — YOU MAY CHECK YOUR ANSWERS IN THIS SECTION ONLY