First name
Last name
Class
Date

Please read this page, but do not open your booklet until your teacher tells you to start. Write your name, the name of your class and the date in the spaces above.

Remember:
- The test is 1 hour long.
- You must not use a calculator for any question in this test.
- You will need: pen, pencil, rubber, ruler, tracing paper and a mirror (optional).
- This test starts with easier questions.
- Try to answer all the questions.
- Write all your answers and working on the test paper – do not use any rough paper. Marks may be awarded for working.
- Check your work carefully.
- Ask your teacher if you are not sure what to do.
Instructions

Answers
This means write down your answer or show your working and write down your answer.

Calculators
You must not use a calculator to answer any question in this test.
1. The table shows the different types of light bulb sold in a shop.

<table>
<thead>
<tr>
<th>Type of bulb</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25W</td>
</tr>
<tr>
<td>Round</td>
<td>✓</td>
</tr>
<tr>
<td>Normal</td>
<td>✓</td>
</tr>
<tr>
<td>Long life</td>
<td>✓</td>
</tr>
<tr>
<td>Coloured</td>
<td>✓</td>
</tr>
<tr>
<td>Reflector</td>
<td>✓</td>
</tr>
</tbody>
</table>

Use this information to answer these questions.

(a) Long life bulbs are sold with two different powers.
What are these powers?

___ W and ___ W

(b) One type of bulb is only sold with a power of 25W.
What type of bulb is this?

__________________________

1 mark
2. Here is a number grid.

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>42</td>
<td>43</td>
<td>44</td>
<td>45</td>
<td>46</td>
<td>47</td>
<td>48</td>
<td>49</td>
<td>50</td>
</tr>
<tr>
<td>51</td>
<td>52</td>
<td>53</td>
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<td>61</td>
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<td>67</td>
<td>68</td>
<td>69</td>
<td>70</td>
</tr>
<tr>
<td>71</td>
<td>72</td>
<td>73</td>
<td>74</td>
<td>75</td>
<td>76</td>
<td>77</td>
<td>78</td>
<td>79</td>
<td>80</td>
</tr>
<tr>
<td>81</td>
<td>82</td>
<td>83</td>
<td>84</td>
<td>85</td>
<td>86</td>
<td>87</td>
<td>88</td>
<td>89</td>
<td>90</td>
</tr>
</tbody>
</table>

Two squares are shaded.

(a) What is the total of the numbers in the two shaded squares?

(b) Shade two different squares that have the same total as the answer to part (a).

(c) What is the total of the numbers in all four shaded squares?
3. A café sells small, medium and large drinks.

The table shows the number of drinks the café sold on one day.

<table>
<thead>
<tr>
<th></th>
<th>Coffee</th>
<th>Tea</th>
<th>Chocolate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>110</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Medium</td>
<td>121</td>
<td>103</td>
<td>42</td>
</tr>
<tr>
<td>Large</td>
<td>90</td>
<td>64</td>
<td>58</td>
</tr>
</tbody>
</table>

(a) Altogether, how many chocolate drinks were sold?

(b) A small tea costs 50p.

Altogether, how much was spent on small teas?

£
4. The shaded shapes in this question are drawn on square grids. The mirror lines are shown.

Draw the reflection of each shape.
5. Look at the number sentences below.
Tick (✓) ones that are correct and cross (✗) ones that are incorrect.

<table>
<thead>
<tr>
<th>✓ or ✗</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 + 8 = 8 + 5 ✓</td>
</tr>
<tr>
<td>5 - 8 = 8 - 5 ✗</td>
</tr>
<tr>
<td>5 × 8 = 8 × 5 ✓</td>
</tr>
<tr>
<td>5 ÷ 8 = 8 ÷ 5 ✓</td>
</tr>
</tbody>
</table>

2 marks

6. Which one of these is most likely to hold about 5 litres when it is full?
Tick (✓) your answer.

- A spoon
- A bottle of cough mixture
- A watering can
- A garden pond

1 mark
7. Write the missing numbers in the boxes.

\[ 79 + \_ = \Box \]

\[ 36 + \Box = 90 \]

1 mark

8. The numbers on these scales balance.

Write the missing number so that these scales balance.

\[ 27 + 26 = \Box \]

1 mark
9. In this question you need to know:

Jo’s birthday is **June 5th**.

(a) Sanjay’s birthday is exactly **three weeks after** Jo’s birthday.

On what date is Sanjay’s birthday?

(b) Tina’s birthday is **5 months after** Jo’s birthday.

In which month is Tina’s birthday?
10. Lily finished 2nd out of 8 runners in a race.
How many runners finished the race after Lily?

Max was in a different race.

7 runners finished the race before Max.
3 runners finished the race after Max.

Altogether, how many runners finished the race?
11. Complete this diagram so that the three numbers in each line **add to 8**
12. A sports centre has two different clubs.

(a) **22 children** go to the gym club.
Complete the pictogram.

(b) **10 more girls** than boys go to the swimming club.
Complete the key.
13. In a school, lessons are **55 minutes** long.

(a) A maths lesson **starts** at 9:15am

At what time does the lesson **end**?


1 mark

(b) A history lesson **ends** at 3:30pm

At what time does the lesson **start**?


1 mark

(c) Lunch break is **1\frac{1}{4} hours** long.

Lunch break **ends** at 1:30pm

At what time does it **start**?


1 mark
14. 2 tins balance 1 bottle.

1 tin and 1 bottle balance 1 box.

(a) How many **bottles** do 6 **tins** balance?

(b) How many **boxes** do 6 **tins** balance?
15. (a) Look at this information about recycling:

25 large plastic bottles can be recycled to make 1 fleece jacket.

Write the missing number in this sentence.

200 large plastic bottles can be recycled to make __________ fleece jackets. 1 mark

(b) In a survey, 9 out of 10 people said they would like to recycle more.

What percentage of people said they would like to recycle more?

___________ % 1 mark
16. Look at the shape drawn on a square grid.

(a) What is the name of the shape?
Put a ring round the correct name below.

hexagon  quadrilateral  octagon
pentagon  parallelogram

(b) One of the angles inside the shape is a **right angle**.
Mark the right angle on the shape above.
17. A teacher said:

**Choose values for** \(a\) **and** \(b\)

**Use the letters to make expressions for the numbers 1 to 8**

(a) One group of pupils chose \(a = 2\) and \(b = 3\)

Complete their table.

\[
\begin{array}{|c|c|}
\hline
a = 2 & b = 3 \\
\hline
b - a & = 1 \\
\hline
a & = 2 \\
\hline
b & = 3 \\
\hline
2 \times a & = 4 \\
\hline
& = 5 \\
\hline
a \times b & = 6 \\
\hline
2 \times a + b & = 7 \\
\hline
& = 8 \\
\hline
\end{array}
\]

(b) Here is part of the table from a different group of pupils.

\[
\begin{array}{|c|c|}
\hline
2 \times a & = 6 \\
\hline
a + b & = 7 \\
\hline
\end{array}
\]

What values did they choose?

\[
\begin{array}{c}
\begin{align*}
a & = \_\_\_\_\_\_
\end{align*}
\end{array}
\begin{array}{c}
\begin{align*}
b & = \_\_\_\_\_
\end{align*}
\end{array}
\]

1 mark

1 mark
18. The graph shows a **rectangle**.

Write the coordinates of point $P$

\[(\underline{\quad}, \underline{\quad})\]  

2 marks
19. The table below helps to change centimetres into inches.

<table>
<thead>
<tr>
<th>Number of centimetres</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of inches (approximately)</td>
<td>0.8</td>
<td>1.6</td>
<td>2.4</td>
<td>3.1</td>
<td>3.9</td>
<td>4.7</td>
</tr>
</tbody>
</table>

About how many inches are there in 14 centimetres?  

[Write space for answer] inches  

1 mark
20. The graph shows the relationship between miles per hour and kilometres per hour.

Use the graph to write the missing numbers in the sentences below.

In England, the speed limit in towns is 30 miles per hour, which is ________ kilometres per hour.

In a different country, the speed limit in towns is 70 kilometres per hour, which is ________ miles per hour.
21. (a) Work out the answer.

\[
2 + \left( \frac{16}{2} \right) + 6 = \text{__________}
\]

(b) Put brackets in the calculation below to make it correct.

\[
2 + 16 \div 2 + 6 = 4
\]

22. Here is part of a train timetable.

<table>
<thead>
<tr>
<th></th>
<th>07:45</th>
<th>13:35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paddington</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redruth</td>
<td>12:47</td>
<td></td>
</tr>
</tbody>
</table>

(a) How long is the journey time from Paddington to Redruth on the 07:45 train?

\[
\text{__________ hours and \__________ minutes}
\]

(b) The 13:35 train from Paddington takes 4 hours 26 minutes to travel to Redruth.
Write the missing time in the timetable.
23. Alison builds a shape with some cubes.

These are the front view, side view and top view of her shape.

Tariq builds a different shape with some cubes.

Draw the front view, side view and top view of his shape.
24. (a) When \( y = 1 \), which expression below has the largest value? Put a ring round it.

\[
\begin{align*}
3 + y & \quad 10 - y & \quad y^2 \\
3y & \quad \frac{y}{2} \\
\end{align*}
\]

1 mark

(b) When \( y = 4 \), which expression below has the largest value? Put a ring round it.

\[
\begin{align*}
3 + y & \quad 10 - y & \quad y^2 \\
3y & \quad \frac{y}{2} \\
\end{align*}
\]

1 mark

(c) Write a number to make the sentence below true.

When \( y = \_), the expression \( 3 + y \) has a larger value than the expression \( 3y \)
25. The graph shows the temperature in a town between 6am and 2pm on 7th February and 7th August one year.

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature in °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>6am</td>
<td></td>
</tr>
<tr>
<td>8am</td>
<td></td>
</tr>
<tr>
<td>10am</td>
<td></td>
</tr>
<tr>
<td>12noon</td>
<td></td>
</tr>
<tr>
<td>2pm</td>
<td></td>
</tr>
<tr>
<td>7th February</td>
<td>20°C</td>
</tr>
<tr>
<td>7th August</td>
<td>30°C</td>
</tr>
</tbody>
</table>

(a) Estimate as accurately as you can the time when the temperature reached 20°C on 7th August.

_________________ am

(b) What was the difference between the temperatures at 12 noon on the two days?

_________________ °C

(c) On 7th February between 6am and 2pm the temperature dropped.

How many degrees did the temperature drop?

_________________ °C
26. In 2005, about 60.2 million people lived in the UK.

Look at the information about these people.

- 50.4 million lived in England.
- 5.1 million lived in Scotland.
- 3 million lived in Wales.
- The rest lived in Northern Ireland.

(a) In 2005, about how many people lived in Northern Ireland?

[Blank for million]

(b) In 2005, about what percentage of people in the UK lived in Wales?

Tick (√) the correct value.

- [ ] 1%
- [ ] 5%
- [ ] 20%
- [ ] 63%

[Blank for 1 mark]
27. (a) What number is halfway between \(-2\) and \(6\)?

(b) Complete the sentence.

\(-10\) is halfway between \__________\ and \(8\)

28. Here is a quadrilateral drawn on a square grid.

On the same grid, draw a **different quadrilateral** which has the **same area**.
END OF TEST