

## 10 Question Challenge!

**Q1.** Here is a number grid.



|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |

Two squares are shaded.

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

.....

1 mark

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

1 mark

(c) What is the **total** of the numbers in **all four** shaded squares?

.....

1 mark

**Q2.** A café sells small, medium and large drinks.

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

|        | Coffee | Tea | Chocolate |
|--------|--------|-----|-----------|
| Small  | 110    | 14  | 24        |
| Medium | 121    | 103 | 42        |
| Large  | 90     | 64  | 58        |

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



.....

2 marks

(b) A **small tea** costs **50p**.

Altogether, how much was spent on small teas?



|   |
|---|
| £ |
|---|

1 mark

**Q3.** Write the missing numbers in the boxes.

  $79 + 85 = \boxed{\phantom{00}}$

1 mark

  $36 + \boxed{\phantom{00}} = 90$

1 mark

**Q4.** 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?

 .....

1 mark

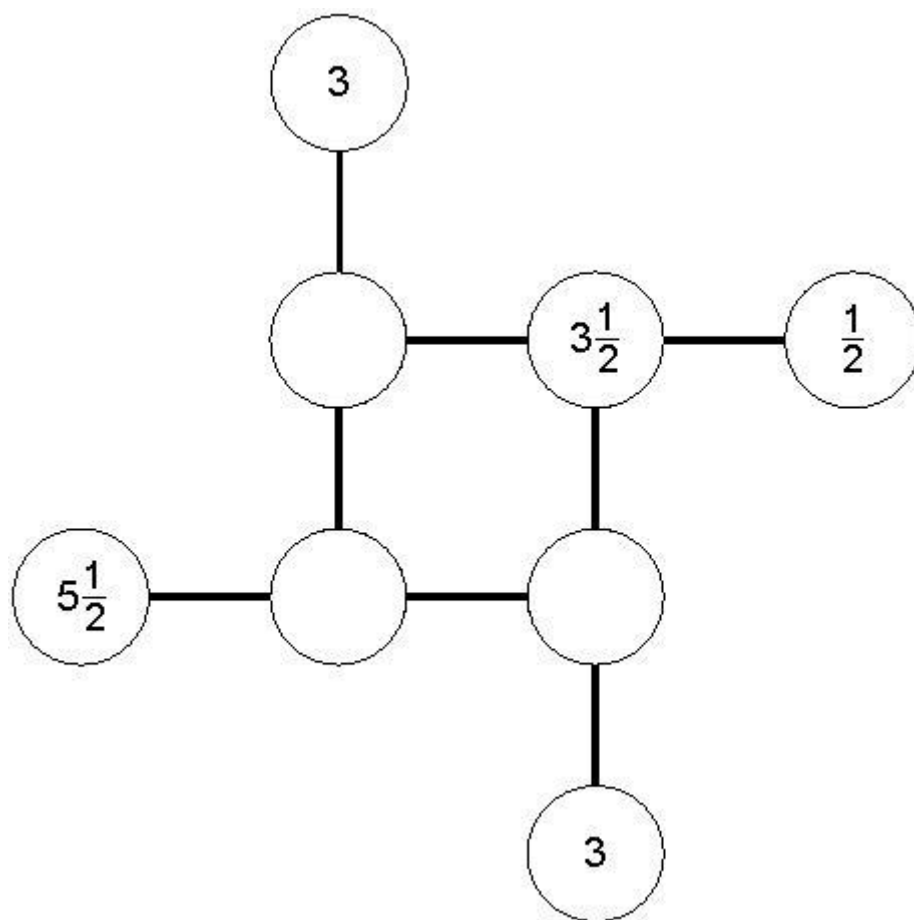
- (b) Tina's birthday is **5 months after** Jo's birthday.

In which month is Tina's birthday?

 .....

1 mark

**Q5.** Complete this diagram so that the three numbers in each line **add to 8**

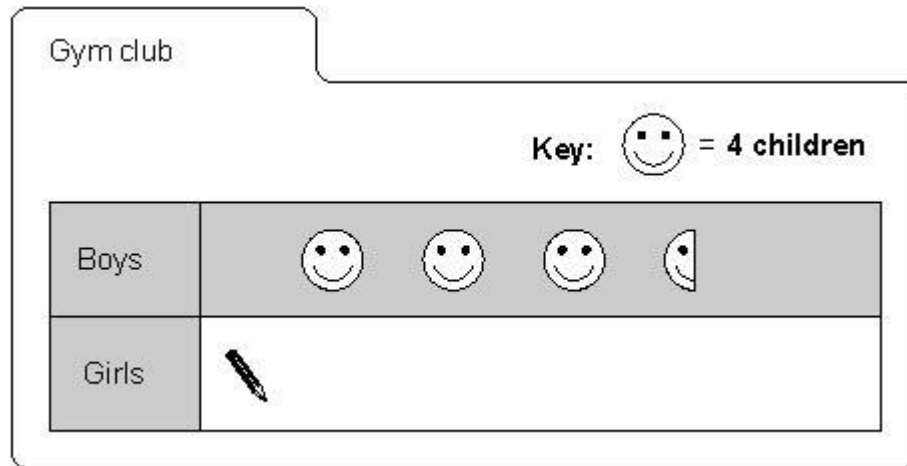


2 marks

**Q6.** A sports centre has two different clubs.

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

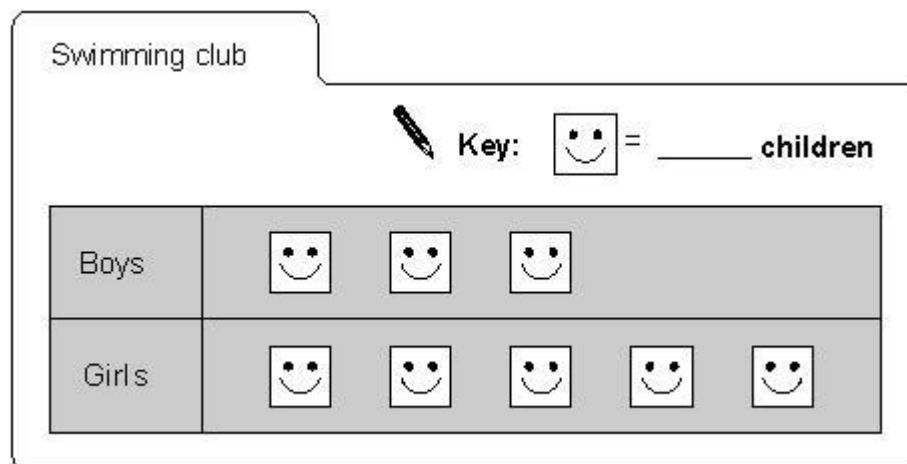
Complete the pictogram.



1 mark

- (b) **10 more girls** than boys go to the swimming club.

Complete the key.



1 mark

**Q7.**

- (a) Work out the answer.

  $2 + (16 \div 2) + 6 = \dots\dots\dots$

1 mark

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

  $2 + 16 \div 2 + 6 = 4$

1 mark

**Q8.** 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.

|  |                      |
|--|----------------------|
|  | $a = 2$ $b = 3$      |
|  | $b - a = 1$          |
|  | $a = 2$              |
|  | $b = 3$              |
|  | $2 \times a = 4$     |
|  | $= 5$                |
|  | $a \times b = 6$     |
|  | $2 \times a + b = 7$ |
|  | $= 8$                |

2 marks

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

|                  |
|------------------|
| $2 \times a = 6$ |
| $a + b = 7$      |

What values did they choose?

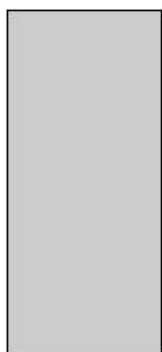
1 mark

$a = \dots\dots\dots b = \dots\dots\dots$

1 mark

**Q9.** The shaded rectangle is **twice as long** as it is wide.

The **perimeter** of the rectangle is **30cm**.



Not drawn accurately

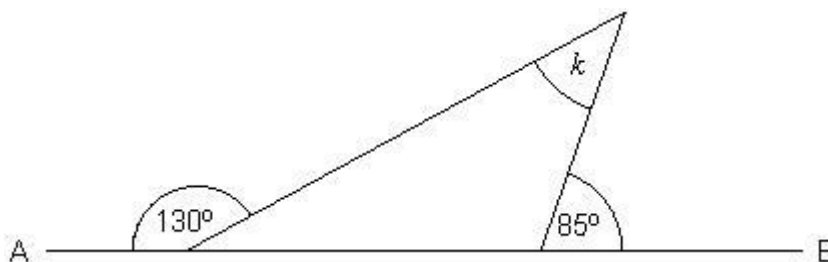
What is the **area** of the rectangle?



..... cm<sup>2</sup>

2 marks

**Q10.** Look at the diagram.



Not drawn accurately

AB is a straight line.

Work out the size of angle  $k$



$k =$  ..... °

2 marks