1. Dinner time

The diagram shows what pupils in years 7, 8 and 9 choose to do at dinner time.

Key

■ Year 7

□ Year 8

▨ Year 9
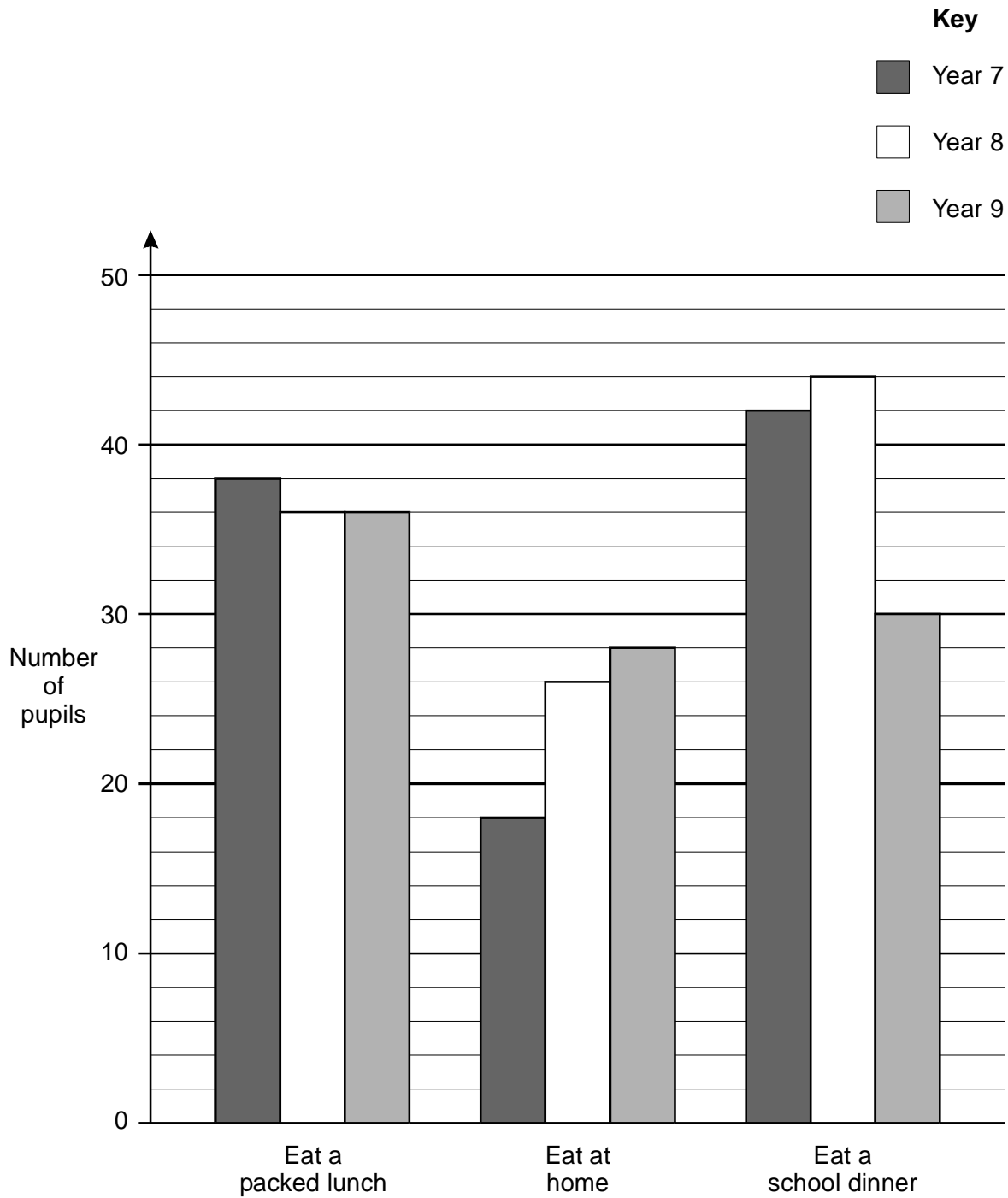
(a) A pupil from each year group is chosen at random.

Are they **most likely** to eat a packed lunch, or eat at home, or eat a school dinner?

Tick (✓) the correct boxes.

	Eat a packed lunch	Eat at home	Eat a school dinner
Pupil from year 7	☐	☐	☐
Pupil from year 8	☐	☐	☐
Pupil from year 9	☐	☐	☐

2 marks

(b) How many **more** pupils are there in year **8** than year **9**?

Show your working.

....

2 marks

2. **Throwing coins**

I throw a fair coin.

For each statement below, put a tick (✓) to show if the statement is **True** or **False.**

(a) On **each** throw, the probability of getting a head is $\frac{1}{2}$

True ☐   False ☐

Explain your answer.

1 mark

(b) On **four throws,** it is **certain** that I will get two heads and two tails.

True ☐   False ☐

Explain your answer.

1 mark

3.   **Tokens**

A class has some gold tokens and some silver tokens.

The tokens are all the same size.

(a)   The teacher puts **4 gold tokens** and **1 silver token** in a bag.

Leah is going to take one token out of the bag without looking.

She says:

> There are two colours, so it is **just as likely** that I will get a gold token as a silver token.

Explain why Leah is **wrong**.

1 mark

(b)   How many **more silver** tokens should the teacher put in the bag to make it just as likely that Leah will get a gold token as a silver token?

…………………

1 mark

(c)   Jack has a different bag with **8** tokens in it.

It is **more likely** that Jack will take a gold token than a silver token from his bag.

How many **gold** tokens might there be in Jack's bag?

…………………

1 mark

Total 3 marks