



EDUCATION LEVEL: HIGHER

How much did it cost the class to watch the television yesterday?

How much do you estimate it cost everyone in the class to watch their televisions yesterday?

Complete a class survey:

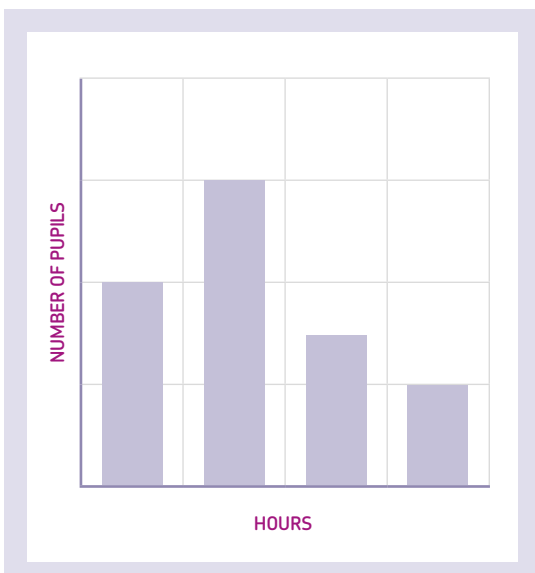
How long did people in your class watch television for yesterday? Mark the nearest half an hour.

TIME (h:mm)	Example: 1.30 hours	0	0:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00
TALLY	III									
TOTAL NUMBER	3									
TOTAL TIME	$3 \times 1.30 = 4.30$									

Use your data to draw a bar chart.

Remember:

**S**cale **A**xes **L**abels **T**itle



Look at your survey results and answer these questions

1. How many people are in your class?
2. What was the shortest time somebody watched TV?
3. What was the longest time somebody watched TV?
4. For how long did most people watch television?
5. What was the total time that the whole class watched TV?

The power of a television is 0.2 kilowatts (kW).  
A kettle is 2 kW, so needs 10 times more electricity to run.  
It costs 15p to run something that is 1 kW for one hour.

1. How much would it cost to run a kettle for one hour?
2. How much would it cost to run a television for one hour?
3. How much would it cost to run all the televisions used by the class yesterday?
4. How much does it cost to run all the televisions for a week?
5. How much does it cost to run all the televisions for a year?
6. Estimate your household electricity bill using the formula:  
 $\text{Cost (£)} = (10 + 10n) \times 15$  (where  $n$  is the number of people living in the house)