

Year 4: Time graphs and continuous data: answers

Year 4 - Pictograms, Bar Charts and Time Graphs - Lesson 11.6

Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-4/ch11-statistics/time-graphs-and-continuous-data/

Exercise 11F Time graphs and continuous data

Non-calculator

1 Is each type of data **discrete** (counted) or **continuous** (measured)?

- (a) The number of goals scored in a match

Answer: Discrete

- (b) The time it takes to run 100 metres

Answer: Continuous

- (c) The number of cars in a car park

Answer: Discrete

- (d) The temperature of a cup of tea

Answer: Continuous

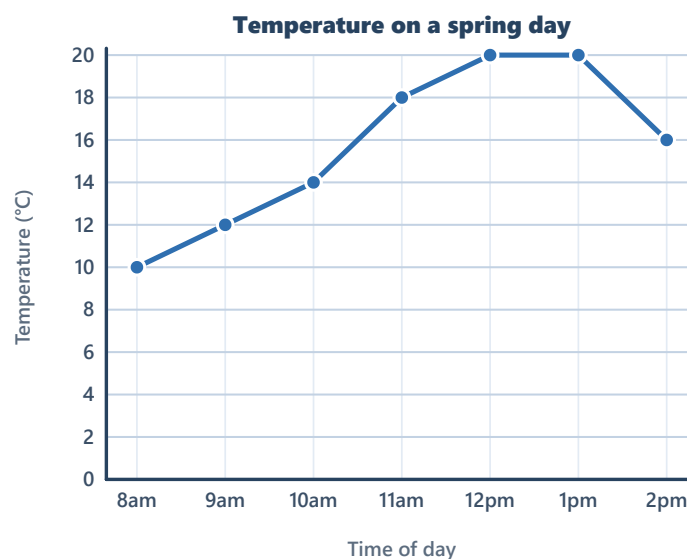
- (e) The height of a tree

Answer: Continuous

- (f) The number of pages in a book

Answer: Discrete

2 Read the time graph of the temperature.



- (a) What was the temperature at 8am?

Answer: 10

(b) What was the temperature at 9am?

Answer: 12

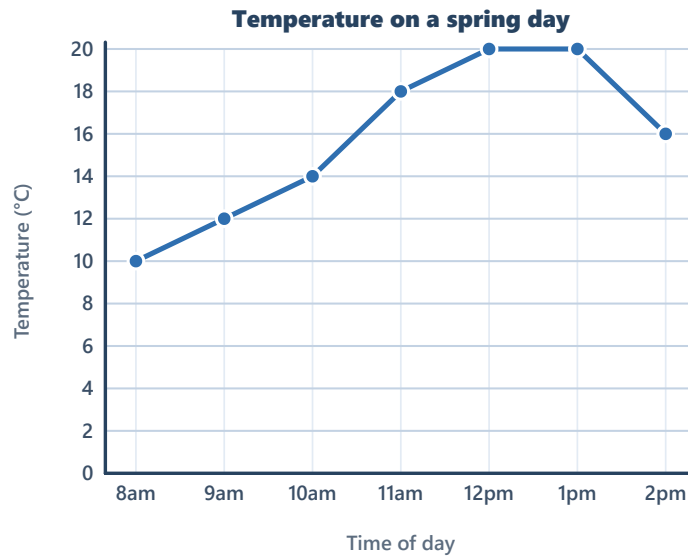
(c) What was the temperature at 11am?

Answer: 18

(d) What was the temperature at 2pm?

Answer: 16

3 Use the same graph. At what time was the temperature:



(a) 12°C?

Answer: 9am

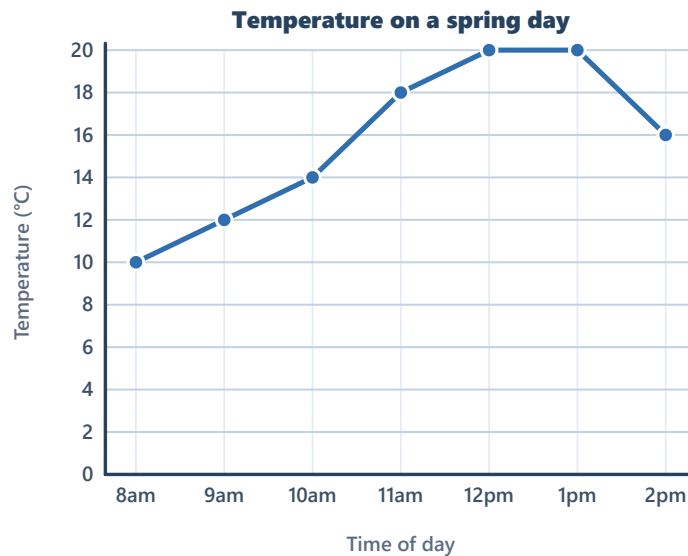
(b) 18°C?

Answer: 11am

(c) 16°C?

Answer: 2pm

4 Use the temperature graph.



- (a) How much warmer was it at 11am than at 9am?

Answer: 6

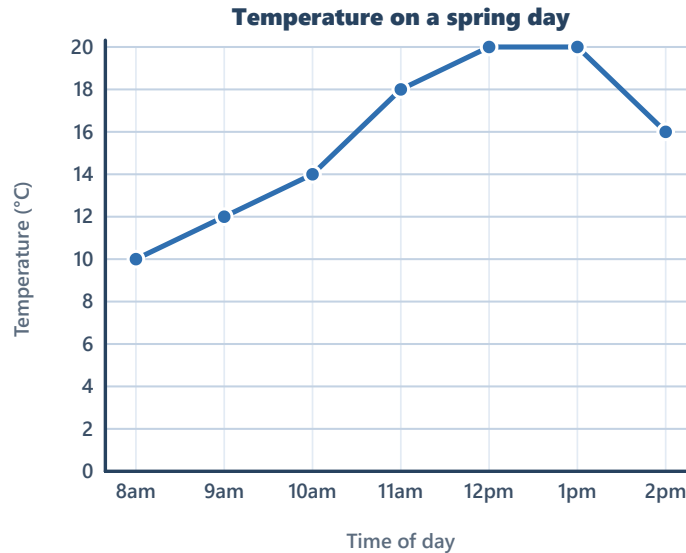
- (b) How much cooler was it at 2pm than at 1pm?

Answer: 4

- (c) What is the difference between the highest and the lowest temperature?

Answer: 10

- 5 Use the temperature graph. Does the temperature go up, go down or stay the same between these times? By how much?



- (a) 8am and 10am

Answer: goes up by 4

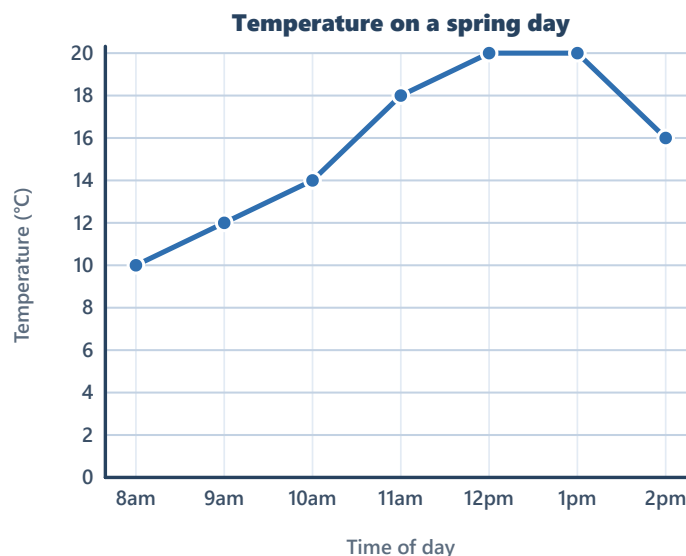
- (b) 12pm and 1pm

Answer: stays the same

- (c) 1pm and 2pm

Answer: goes down by 4

- 6 Use the temperature graph.



- (a) At what time did the temperature first reach its highest value?

Answer: 12pm

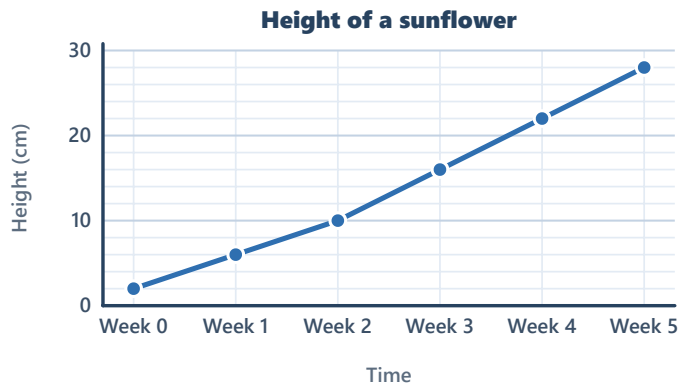
- (b) At what time was it the coolest?

Answer: 8am

- (c) Between which two times was the temperature rise the biggest?

Answer: 10am to 11am

7 Aisha measures her sunflower each week.



- (a) How tall was the sunflower in Week 1?

Answer: 6

- (b) How tall was the sunflower in Week 3?

Answer: 16

- (c) How tall was the sunflower in Week 5?

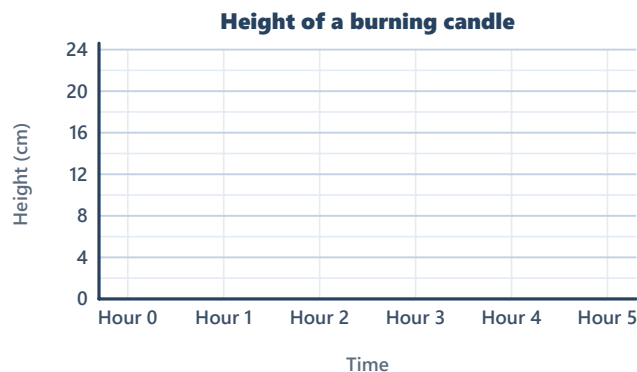
Answer: 28

- (d) How much did it grow between Week 2 and Week 5?

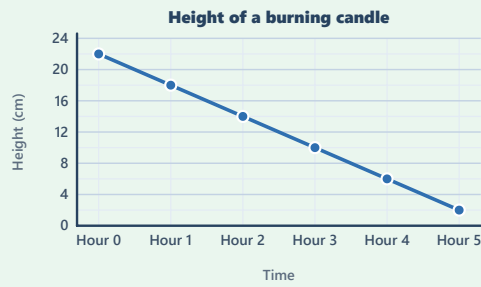
Answer: 18

8 The table shows the height of a candle as it burns. Plot the points on the graph and join them with a ruler.

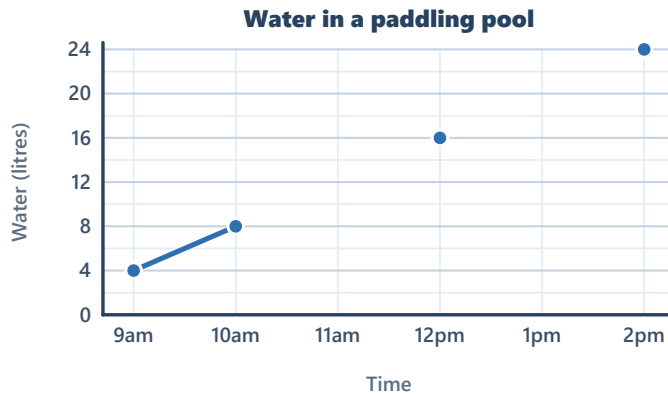
Hour	0	1	2	3	4	5
Height (cm)	22	18	14	10	6	2



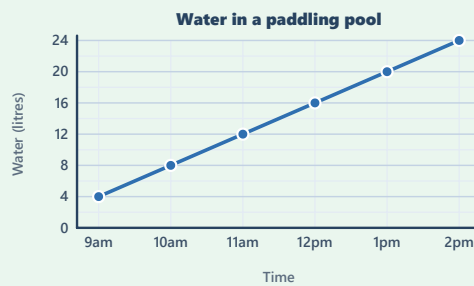
Answer:



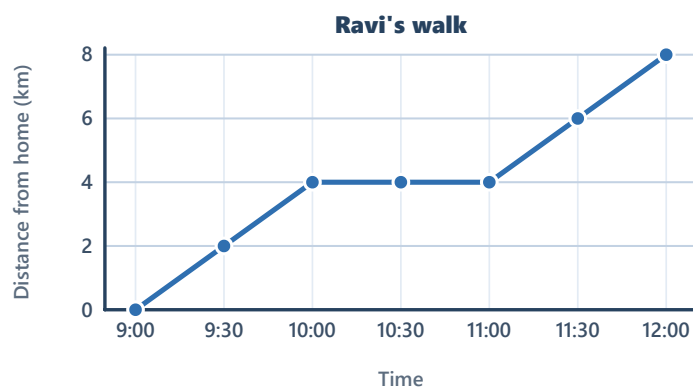
- 9 The graph shows the water in a paddling pool. Plot the points for 11am and 1pm. They are 12 litres and 20 litres.



Answer:



- 10 The graph shows how far Ravi was from home on a walk.



- (a) How far from home was Ravi at 10:00?

Answer: 4

- (b) How far from home was he at 12:00?

Answer: 8

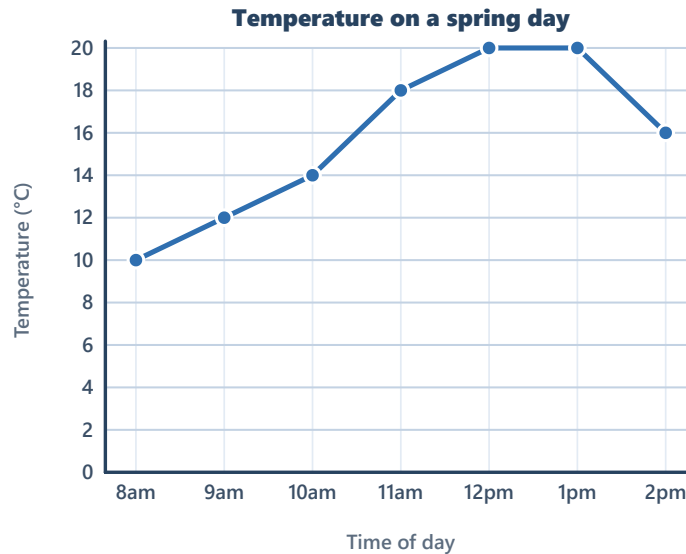
- (c) Ravi stopped for a rest. From what time to what time was the line flat?

Answer: 10:00 to 11:00

- (d) For how long did Ravi rest? Write your answer in minutes.

Answer: 60 minutes

- 11** Write **true** or **false** for each statement about the temperature graph.



- (a) The temperature was 20°C at 12pm and at 1pm.

Answer: True

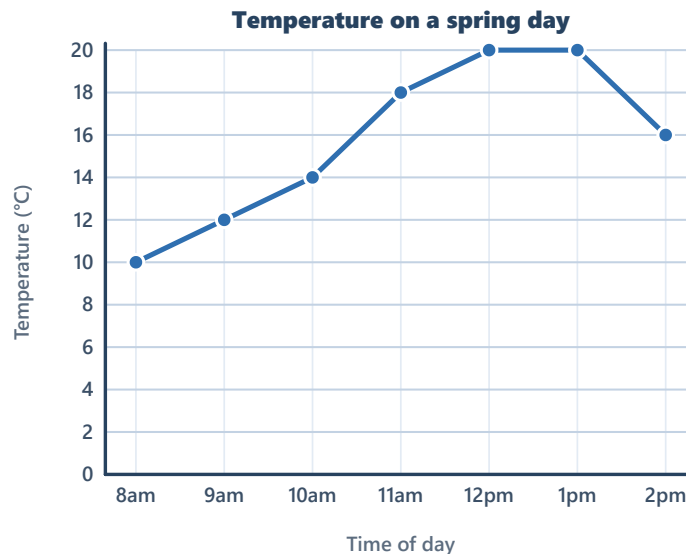
- (b) The temperature went down between 11am and 12pm.

Answer: False

- (c) The temperature at 9am was 2°C higher than at 8am.

Answer: True

- 12** Describe the whole temperature graph in two or three sentences. Say where it goes up, stays the same and goes down.



Answer: From 8am to 12pm it goes up. From 12pm to 1pm it stays the same. From 1pm to 2pm it goes down.

- 13** Leo says, "At 10:30am the temperature must have been exactly 16°C, because that is halfway between 14 and 18." What is wrong with what Leo says? Estimate the temperature.

Answer: It is an estimate: about 16