



# Worksheet 45

Year 3 Mathematics — Australian Curriculum v9.0

Subtopic: Interpret Results in Context

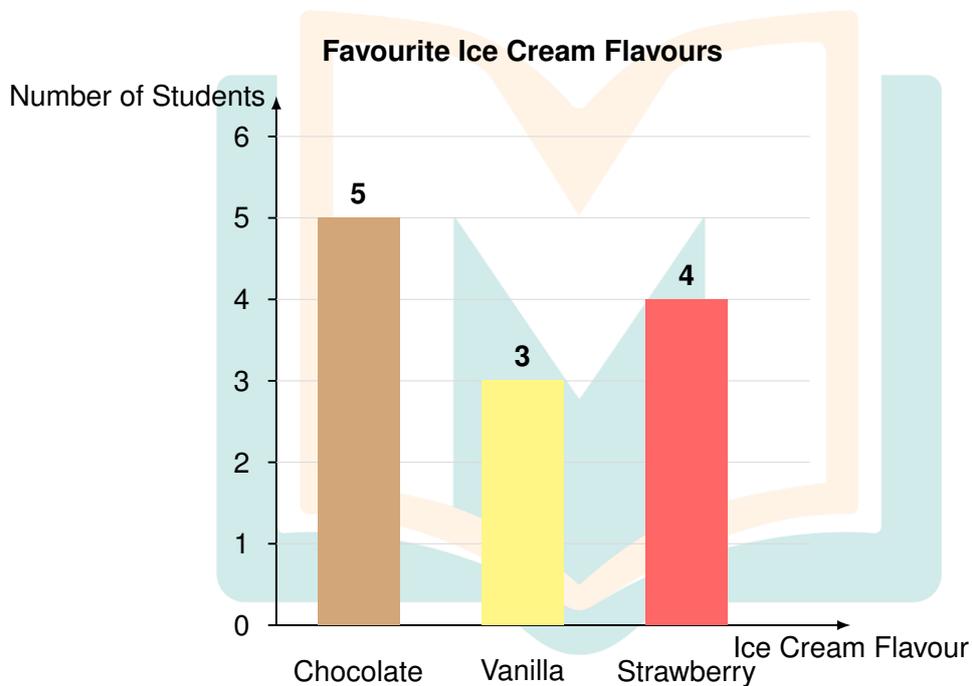
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## Section 1: Fluency — Most and Least (Questions 1–10)

**Instructions:** Use the Column Graph to answer questions about popularity.

**Questions 1-6:** Look at this Column Graph showing Ice Cream Flavours.



**Question 1:** Which flavour is the most popular?

**Answer:** \_\_\_\_\_

**Question 2:** Which flavour is the least popular?

**Answer:** \_\_\_\_\_



**Question 3:** How many students chose Chocolate?

**Answer:** \_\_\_\_\_

**Question 4:** How many students chose Vanilla?

**Answer:** \_\_\_\_\_

**Question 5:** How many students chose Strawberry?

**Answer:** \_\_\_\_\_

**Question 6:** Which flavour has exactly 4 votes?

**Answer:** \_\_\_\_\_

**Question 7:** Look at this Pictograph. Which sport is most popular?

**Favourite Sports**

Soccer: ☺ ☺ ☺ ☺ ☺ ☺

Swimming: ☺ ☺ ☺ ☺

Tennis: ☺ ☺ ☺

Each smiley = 1 student

**Answer:** \_\_\_\_\_

**Question 8:** How many students chose Tennis?

**Answer:** \_\_\_\_\_



**Question 9:** Which sport is the least popular?

**Answer:** \_\_\_\_\_

**Question 10:** How many students chose Swimming?

**Answer:** \_\_\_\_\_



**Good Job!**

What kind of shoes do spies wear? Sneakers!

**Section 2: Reasoning — How Many More? (Questions 11–20)**

**Instructions:** Compare data and calculate differences.

**Questions 11-16:** Use the Ice Cream Graph from Section 1 to answer these questions.

**Question 11:** How many more students chose Chocolate than Vanilla?

**Answer:** \_\_\_\_\_

**Question 12:** How many more students chose Chocolate than Strawberry?

**Answer:** \_\_\_\_\_

**Question 13:** How many more students chose Strawberry than Vanilla?

**Answer:** \_\_\_\_\_

**Question 14:** How many students chose Strawberry and Vanilla combined?



**Answer:** \_\_\_\_\_

**Question 15:** How many students chose Chocolate and Vanilla combined?

**Answer:** \_\_\_\_\_

**Question 16:** What is the difference between the most popular and least popular flavour?

**Answer:** \_\_\_\_\_

**Questions 17-20:** Use the Sports Pictograph from Section 1.

**Question 17:** How many more students chose Soccer than Tennis?

**Answer:** \_\_\_\_\_

**Question 18:** How many more students chose Soccer than Swimming?

**Answer:** \_\_\_\_\_

**Question 19:** How many students chose Swimming and Tennis combined?

**Answer:** \_\_\_\_\_

**Question 20:** What is the difference between Soccer and Swimming?

**Answer:** \_\_\_\_\_



**Good Job!**

Why was the math book sad? It had too many problems!

**Section 3: Challenge — The Total (Questions 21–30)**

**Instructions:** Calculate totals and interpret overall results.

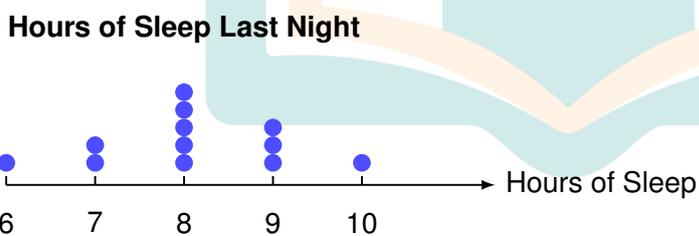
**Question 21:** Look at the Ice Cream Graph. How many students voted in total?

**Answer:** \_\_\_\_\_

**Question 22:** Look at the Sports Pictograph. How many students voted in total?

**Answer:** \_\_\_\_\_

**Question 23:** Look at this Dot Plot. How many students were surveyed in total?



**Answer:** \_\_\_\_\_

**Question 24:** What is the most common number of hours of sleep?

**Answer:** \_\_\_\_\_

**Question 25:** How many students slept 8 hours?



Answer: \_\_\_\_\_

**Question 26:** How many students slept 9 or 10 hours combined?

Answer: \_\_\_\_\_

**Question 27:** Based on the Ice Cream data, complete this sentence:  
"The class prefers \_\_\_\_\_ over \_\_\_\_\_."

Answer: \_\_\_\_\_

**Question 28:** If one more student joined and chose Vanilla, how many would Vanilla have?

Answer: \_\_\_\_\_

**Question 29:** True or False: More than half the students (in the Sports survey) chose Soccer.

Answer: \_\_\_\_\_

**Question 30:** Write one sentence describing what the Ice Cream Graph tells us:

Answer: \_\_\_\_\_



**Good Job!**

Why did the owl become a detective? Because it was a wise investigator!



**Excellent Work! You've completed Worksheet 45!**





# Answer Key — Worksheet 45

Year 3 Mathematics

## Section 1: Fluency

1. Chocolate
2. Vanilla
3. 5 students
4. 3 students
5. 4 students
6. Strawberry
7. Soccer
8. 3 students
9. Tennis
10. 4 students

## Section 2: Reasoning

11. 2 more students ( $5-3=2$ )
12. 1 more student ( $5-4=1$ )
13. 1 more student ( $4-3=1$ )
14. 7 students ( $4+3=7$ )
15. 8 students ( $5+3=8$ )
16. 2 students ( $5-3=2$ )
17. 3 more students ( $6-3=3$ )
18. 2 more students ( $6-4=2$ )
19. 7 students ( $4+3=7$ )
20. 2 students ( $6-4=2$ )

## Section 3: Challenge

21. 12 students ( $5+3+4=12$ )
22. 13 students ( $6+4+3=13$ )
23. 12 students
24. 8 hours
25. 5 students
26. 4 students ( $3+1=4$ )
27. Chocolate over Vanilla (or similar)
28. 4 students
29. False (6 out of 13 is less than half)
30. Answers vary (e.g., Chocolate is most popular)



# Worksheet 46

Year 3 Mathematics — Australian Curriculum v9.0

Subtopic: Interpret Results in Context

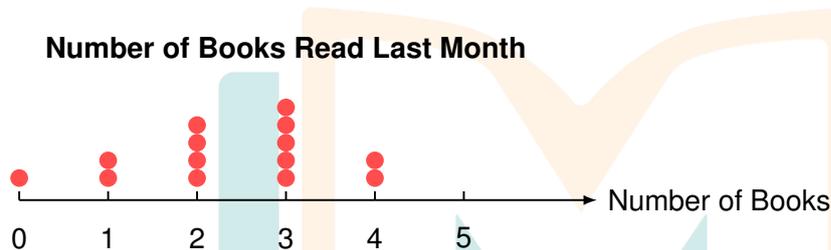
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## Section 1: Fluency — True or False (Questions 1–10)

**Instructions:** Look at the data and decide if statements are True or False.

**Questions 1-6:** Use this Dot Plot showing Number of Books Read.



**Question 1:** True or False: Most students read more than 2 books.

**Answer:** \_\_\_\_\_

**Question 2:** True or False: No one read 5 books.

**Answer:** \_\_\_\_\_

**Question 3:** True or False: 3 books is the most common answer.

**Answer:** \_\_\_\_\_

**Question 4:** True or False: Everyone read at least 1 book.

**Answer:** \_\_\_\_\_



**Question 5:** True or False: More students read 2 books than 1 book.

**Answer:** \_\_\_\_\_

**Question 6:** True or False: The total number of students surveyed was 14.

**Answer:** \_\_\_\_\_

**Questions 7-10:** Use the Ice Cream Graph from Worksheet 45.

**Question 7:** True or False: Chocolate is twice as popular as Vanilla.

**Answer:** \_\_\_\_\_

**Question 8:** True or False: Strawberry has more votes than Vanilla.

**Answer:** \_\_\_\_\_

**Question 9:** True or False: All three flavours have the same number of votes.

**Answer:** \_\_\_\_\_

**Question 10:** True or False: More than 10 students voted in total.

**Answer:** \_\_\_\_\_



**Good Job!**

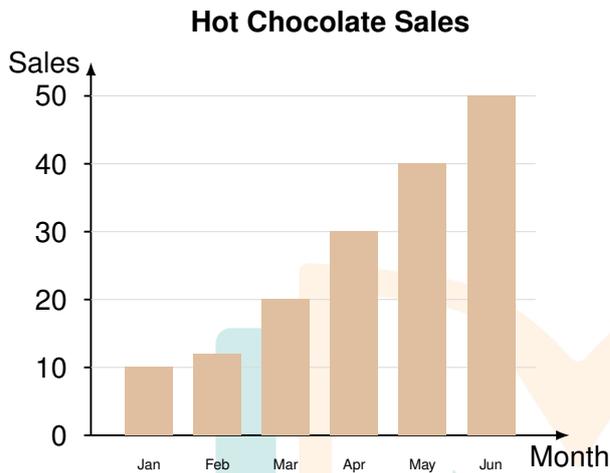
What starts with T, ends with T, and has T in it? A teapot!



**Section 2: Reasoning — Contextual Analysis (Questions 11–20)**

**Instructions:** Think about WHY the data looks the way it does.

**Questions 11-15:** Look at this Column Graph showing Hot Chocolate Sales.



**Question 11:** Which month had the highest sales?

**Answer:** \_\_\_\_\_

**Question 12:** Which month had the lowest sales?

**Answer:** \_\_\_\_\_

**Question 13:** Why do you think sales increased from January to June?

**Answer:** \_\_\_\_\_

**Question 14:** In Australia, June is in which season?

**Answer:** \_\_\_\_\_



**Question 15:** Does the data make sense? Explain why Hot Chocolate sales would be higher in June:

**Answer:** \_\_\_\_\_

**Question 16:** Look at the Books Read graph. Why might someone have read 0 books?

**Answer:** \_\_\_\_\_

**Question 17:** Based on the Sports data, why might Soccer be the most popular?

**Answer:** \_\_\_\_\_

**Question 18:** If you surveyed students in summer, which ice cream would you predict to be most popular?

**Answer:** \_\_\_\_\_

**Question 19:** Look at the Sleep data. Why might 8 hours be most common?

**Answer:** \_\_\_\_\_

**Question 20:** If we asked "Favourite Winter Sport", would the results be different? Why?

**Answer:** \_\_\_\_\_



**Good Job!**

Why did the data analyst bring a ladder? To reach high conclusions!



### Section 3: Challenge — Predicting (Questions 21–30)

**Instructions:** Use data to make predictions and draw conclusions.

**Question 21:** Based on the Ice Cream data, if a new student joined the class, which flavour do you think they would most likely pick? Why?

**Answer:** \_\_\_\_\_

**Question 22:** If we added "Mint" flavour to the ice cream choices, do you think it would be more or less popular than Vanilla? Why?

**Answer:** \_\_\_\_\_

**Question 23:** Look at the Books Read data. If we asked students again next month, what do you predict?

**Answer:** \_\_\_\_\_

**Question 24:** Based on the Sports data, if we held a class sports day, which sport should we organize? Why?

**Answer:** \_\_\_\_\_

**Question 25:** What conclusion can you draw from the Hot Chocolate sales graph?

**Answer:** \_\_\_\_\_

**Question 26:** If you owned an ice cream shop, which flavour would you make sure to stock the most of? Why?



Answer: \_\_\_\_\_

**Question 27:** Complete this sentence based on the Sleep data:  
"Most students in the class get ----- hours of sleep."

Answer: \_\_\_\_\_

**Question 28:** True or False: We can use data to help make decisions.

Answer: \_\_\_\_\_

**Question 29:** Why is it important to interpret data in context (think about the situation)?

Answer: \_\_\_\_\_

**Question 30:** Create your own conclusion statement using any graph from these worksheets:

Answer: \_\_\_\_\_



**Good Job!**

Why don't scientists trust atoms? Because they make up everything!

**Fantastic! You've completed Worksheet 46!**



# Answer Key — Worksheet 46

## Year 3 Mathematics

### Section 1: Fluency

1. False (7 read 2 or less, 7 read 3+)
2. True
3. True
4. False (1 student read 0 books)
5. True (4 vs 2)
6. True ( $1+2+4+5+2=14$ )
7. False (5 is not twice 3)
8. True
9. False
10. True (12 students)

### Section 3: Challenge

21. Chocolate (most popular, so likely)
22. Answers vary (accept reasonable predictions)
23. Answers vary (similar or more/less books)
24. Soccer (most popular)
25. People buy more hot chocolate in winter

### Section 2: Reasoning

11. June
12. January
13. Getting colder/winter approaching
14. Winter
15. Yes, people drink hot drinks in cold weather
16. Answers vary (too busy, don't like reading)
17. Answers vary (easy to play, popular sport)
18. Answers vary (likely still Chocolate)
19. Recommended sleep for children
20. Yes, different sports (skiing, hockey)

26. Chocolate (highest demand)
27. 8 hours (or 3 books depending on context)
28. True
29. To understand why data looks that way
30. Answers vary (check for reasonable statement)