Steady Steps Maths

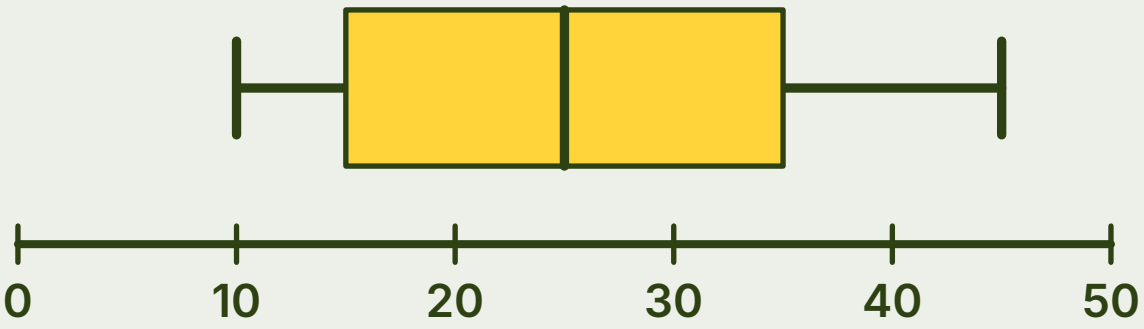
FREE SAMPLE WORKSHEET · TOPIC 11

FREE SAMPLE

Statistics

Free sample worksheet · with answers

GRADE 6



IQR = 35 − 15 = 20

Common Core 6.SP.A.1–3, 6.SP.B.4–5

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Quick recap

The big idea from each pack in this topic. Read it first, then try the questions.

Learn it · Pack 1 · Statistical questions

A statistical question expects answers that vary.
"How tall are the students in my class?" is statistical. "How tall am I?" is not.

Learn it · Pack 2 · Mean, median and mode

Mean: add, then divide by how many.
Median: the middle value in order. Mode: the most common value.
2, 3, 3, 7, 10 → mean 5, median 3, mode 3

Learn it · Pack 3 · Dot plots and histograms

A dot plot shows every value as a dot.
A histogram groups values into intervals and shows how many are in each.

Learn it · Pack 4 · Box plots

Five-number summary: minimum, Q1, median, Q3, maximum.
IQR = Q3 − Q1. It shows how spread out the middle half of the data is.

PACK 1 Statistical Questions

1. Is "How many pets do the students in my class have?" a statistical question?

Answer

2. Is "What time does school start?" a statistical question?

Answer

3. Find the range of 12, 30, 7, 25 and 18.

Answer

4. Rewrite "How old is my brother?" as a statistical question.

Answer

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PACK 2 Mean, Median & Mode

5 Find the mean of 4, 8, 9, 11 and 13.

Answer

6 Find the median of 15, 3, 9, 21, 6 and 12.

Answer

7 Find the mode of 5, 7, 5, 9, 7, 5 and 2.

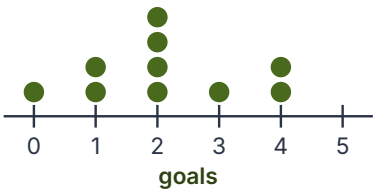
Answer

8 The mean of 4 numbers is 6. Three of them are 3, 5 and 8. What is the fourth number?

Answer

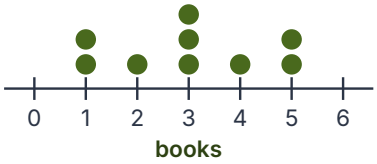
PACK 3 Dot Plots & Histograms

9 The dot plot shows goals scored in some games. How many games are shown? What is the mode?



Answer

10 The dot plot shows books read by some students. What is the median?

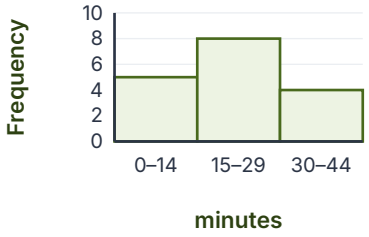


Answer

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11 The histogram shows minutes spent reading. How many students are shown?



Answer _____

12 Which display shows every single value: a dot plot or a histogram?

Answer _____

PACK 4 Box Plots & Spread

13 Find the median, Q1 and Q3 of 3, 5, 7, 8, 10, 12, 15.

Answer _____

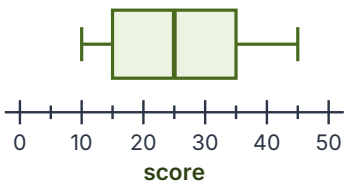
14 A box plot has Q1 = 18 and Q3 = 31. What is the IQR?

Answer _____

15 About what fraction of the data lies inside the box of a box plot?

Answer _____

16 Read the box plot. What is the median? What is the IQR?



Answer _____

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Real life

Read carefully, then show your working

17 Six test scores are 12, 15, 14, 13, 16 and 50.
(a) Find the mean and the median. (b) Which one describes a typical score better? Explain.

Answer

18 Find the mean absolute deviation (MAD) of 2, 4, 6, 8 and 10. Show your steps.

Answer

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Answer key

For parents · check the steps as well as the final answer

Pack 1	**1)** yes **2)** no **3)** 23 **4)** e.g. “How old are the people in my family?”
Pack 2	**5)** 9 **6)** 10.5 **7)** 5 **8)** 8
Pack 3	**9)** 10 games; mode 2 goals **10)** 3 books **11)** 17 students **12)** a dot plot
Pack 4	**13)** median 8, Q1 5, Q3 12 **14)** 13 **15)** one half **16)** median 25; IQR 35 − 15 = 20
Real life	**17)** (a) mean 20, median 14.5 (b) the median: 50 is much bigger than the rest and pulls the mean up **18)** mean 6; distances 4, 2, 0, 2, 4; MAD = 12 ÷ 5 = 2.4

Tip: For the median, the first step is always to put the numbers in order. That is where most mistakes start.

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Enjoyed this sample?

This sheet has 18 questions. The full topic has 123, plus 10 unit tests.

Everything a Grade 6 student needs on statistics: statistical questions, mean, median, mode and MAD, dot plots and histograms, and box plots with quartiles and the interquartile range.

What you get	What's inside	Questions
Pack 1 · Statistical Questions	Learn-it boxes, worked examples, practice, word problems, self-check and answer key · Common Core 6.SP.A.1–3	34
Pack 2 · Mean, Median & Mode	Learn-it boxes, worked examples, practice, word problems, self-check and answer key · Common Core 6.SP.A.3, 6.SP.B.5	33
Pack 3 · Dot Plots & Histograms	Learn-it boxes, worked examples, practice, word problems, self-check and answer key · Common Core 6.SP.B.4	28
Pack 4 · Box Plots & Spread	Learn-it boxes, worked examples, practice, word problems, self-check and answer key · Common Core 6.SP.B.4, 6.SP.B.5c	28
Complete Topic book	All 4 packs in one book with a contents page	123
10 Unit Tests (A–J)	40 marks each, about 40 minutes, with a mark scheme and a “what to revise” table. **Test A is free.**	18 per test

How to use this sample

1. Let your child read the recap page and try the questions on their own.
2. Mark together with the answer key. Each section shows which pack it comes from.
3. If a section felt hard, that pack is the place to start. If it all felt easy, try the free Unit Test A.

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