

Name _____

Date _____

Maths vocabulary — answers

49 tasks in five styles, covering every key word in Unit 1.

A · Unscramble the term — Rearrange the letters to make the term that matches the definition.

1 dome

The value that occurs most often.

Example: The mode of 3, 7, 7, 2 is 7.

Answer: mode

The word is **mode** — The value that occurs most often.

2 aemidn

The middle value when the data is in order.

Example: The median of 2, 3, 5, 7, 9 is 5.

Answer: median

The word is **median** — The middle value when the data is in order.

3 aemn

The total divided by how many values there are.

Example: The mean of 4, 6, 8 is 6.

Answer: mean

The word is **mean** — The total divided by how many values there are.

4 eargn

The largest value minus the smallest.

Example: $9 - 2 = 7$.

Answer: range

The word is **range** — The largest value minus the smallest.

5 ruoltei

A value far away from all the others.

Example: The 950 in 180, 200, 210, 950.

Answer: outlier

The word is **outlier** — A value far away from all the others.

6 yrfqeeucn

How many times a value occurs.

Example: The column in a table.

Answer: frequency

The word is **frequency** — How many times a value occurs.

7 drtne

The general direction data is moving in.

Example: Sales rising each year.

Answer: trend

The word is **trend** — The general direction data is moving in.

8 laspme

The part of a population actually surveyed.

Example: 28 learners out of 900.

Answer: sample

The word is **sample** — The part of a population actually surveyed.

9 aibs

A sample chosen in a way that makes it unrepresentative.

Example: Asking only gym members about exercise.

Answer: bias

The word is **bias** — A sample chosen in a way that makes it unrepresentative.

10 oestcr

One slice of a pie chart.

Example: A 90° sector is a quarter.

Answer: sector

The word is **sector** — One slice of a pie chart.

B · Fill in the gaps — Use a word from the box to complete each sentence.

- 11** The value that occurs most often is the _____.

Word box: □

Answer: mode

The only average that works for words.

- 12** The middle value, once the data is in order, is the _____.

Word box: □

Answer: median

Position $(n + 1) \div 2$.

- 13** The total divided by how many values there are is the _____.

Word box: □

Answer: mean

It shares the total out equally.

- 14** The largest value minus the smallest is the _____.

Word box: □

Answer: range

It measures spread, not average.

- 15** A value far away from all the others is an _____.

Word box: □

Answer: outlier

It pulls the mean but barely moves the median.

- 16** Data with a small range is _____.
Word box: ☐
Answer: consistent
The values are packed close together.
- 17** The general direction data is moving in over time is the _____.
Word box: ☐
Answer: trend
One dip does not end a rising one.
- 18** The part of a population you actually survey is the _____.
Word box: ☐
Answer: sample
The bigger and fairer, the better.
- 19** A sample chosen in a way that makes it unrepresentative shows _____.
Word box: ☐
Answer: bias
No arithmetic can repair it.
- 20** A circle divided into sectors showing shares of a whole is a _____.
Word box: ☐
Answer: pie chart
The sectors total 360°.

C · Choose the correct ending — Pick the reason that correctly finishes each sentence.

- 21** You must put data in order before finding the median because ...
☐ it looks tidier
☐ the median is defined by position
☐ the mode needs it
Answer: the median is defined by position
Position only means anything once the values are sorted.
- 22** One extreme value moves the mean more than the median because ...
☐ the mean is harder
☐ the mean uses every value, and the median only looks at the middle
☐ the median is bigger
Answer: the mean uses every value, and the median only looks at the middle
That is exactly why house prices are quoted as medians.
- 23** The mode is the only average that works for colours because ...
☐ colours are pretty
☐ you can count how often each occurs, but you cannot add them up
☐ there are only a few colours
Answer: you can count how often each occurs, but you cannot add them up
Categorical data can be counted, not totalled.

24 A bar chart's scale should start at zero because ...

- ☐ it is neater
- ☐ otherwise small differences look far bigger than they are
- ☐ the bars would not fit

Answer: otherwise small differences look far bigger than they are

The classic misleading graph.

25 The sectors of a pie chart add to 360° because ...

- ☐ 360 is a nice number
- ☐ the whole circle represents the whole data set
- ☐ there are 360 people

Answer: the whole circle represents the whole data set

So each sector is a share of one full turn.

26 You should quote a range as well as an average because ...

- ☐ it fills the page
- ☐ an average alone says nothing about how spread out the data is
- ☐ ranges are easier

Answer: an average alone says nothing about how spread out the data is

Two classes with the same mean can be nothing alike.

27 A conclusion from 5 people is unreliable because ...

- ☐ 5 is odd
- ☐ the sample is far too small to represent the whole population
- ☐ means need 10 values

Answer: the sample is far too small to represent the whole population

Unit 6's sample-size idea, being used for real.

D · Match the definition — Type the term that matches each definition.

28 Which term means: *The value that occurs most often.*

Answer: mode

mode — The mode of 3, 7, 7, 2 is 7.

29 Which term means: *The middle value when the data is in order.*

Answer: median

median — The median of 2, 3, 5, 7, 9 is 5.

30 Which term means: *The total divided by how many values there are.*

Answer: mean

mean — The mean of 4, 6, 8 is 6.

31 Which term means: *The largest value minus the smallest.*

Answer: range

range — $9 - 2 = 7$.

32 Which term means: *A single value that stands for a whole set.*

Answer: average

average — Mode, median and mean are all averages.

33 Which term means: *How far apart the values are.*

Answer: spread

spread — Measured by the range.

34 Which term means: *A value far away from all the others.*

Answer: outlier

outlier — The 950 in 180, 200, 210, 950.

35 Which term means: *Varying little; having a small range.*

Answer: consistent

consistent — A range of 2 rather than 20.

36 Which term means: *How many times a value occurs.*

Answer: frequency

frequency — The column in a table.

37 Which term means: *A chart whose bar heights show frequencies.*

Answer: bar chart

bar chart — One bar for each day.

38 Which term means: *Points joined in order, for data that changes over time.*

Answer: line graph

line graph — Temperature through the day.

39 Which term means: *A circle divided into sectors showing shares of a whole.*

Answer: pie chart

pie chart — The sectors total 360°.

40 Which term means: *One slice of a pie chart.*

Answer: sector

sector — A 90° sector is a quarter.

41 Which term means: *The general direction data is moving in.*

Answer: trend

trend — Sales rising each year.

42 Which term means: *The part of a population actually surveyed.*

Answer: sample

sample — 28 learners out of 900.

43 Which term means: *A sample chosen in a way that makes it unrepresentative.*

Answer: bias

bias — Asking only gym members about exercise.

E · Reading statistics questions — What the instruction words are asking for.

44 A question says “compare the two data sets”. What must your answer contain?

- ☐ One average
- ☐ An average and a range, with what they mean in context
- ☐ A chart
- ☐ The totals

Answer: An average and a range, with what they mean in context

Two statistics and two sentences. That is the standard two-mark answer.

45 A question says “explain which average is most appropriate”. Where is the mark?

- ☐ In naming the average
- ☐ In the reason you give
- ☐ In the calculation
- ☐ In the chart

Answer: In the reason you give

“The median” alone scores nothing. “The median, because one house costs far more than the rest” scores.

46 A question says “comment on the reliability of the conclusion”. What should you discuss?

- ☐ The arithmetic
- ☐ How big the sample was and how it was chosen
- ☐ The chart colours
- ☐ The mean

Answer: How big the sample was and how it was chosen

Size and bias are the two things to say something about.

47 A question says “describe the trend”. What is wanted?

- ☐ A single value
- ☐ The general direction over time, in words
- ☐ The range
- ☐ A calculation

Answer: The general direction over time, in words

“Sales rose steadily from March to July” — direction, and over what period.

48 A question says “give your answer to one decimal place”. What does that mean for a mean of 13.714...?

- ☐ 13
- ☐ 13.7
- ☐ 13.71
- ☐ 14

Answer: 13.7

One digit after the point, rounded.

49 A question says “how many people were asked”. Can a pie chart alone tell you?

- ☐ Yes, from the angles
- ☐ No — it shows proportions only
- ☐ Yes, always
- ☐ Only if it has four sectors

Answer: No — it shows proportions only

The total has to be stated somewhere on the chart.