

Functions (Sum, Min, Max)

Unit: Data Analysis and Representation (Google Sheets) - Student Practice Worksheet

Overview: Anaya added the six days on a calculator and got Rs. 1,690. Kabir added the same six days and got Rs. 1,820. Only one of them could be right. It turned out neither was.

Practice Questions (30 Total)

Section A - Easy

Q1. What must every function start with?



every function starts here

- ☐ A. A bracket
- ☐ B. An equals sign
- ☐ C. A colon
- ☐ D. A capital letter

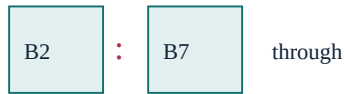
Q2. Per the word bank, what is a 'function' in Google Sheets?

- ☐ A. A picture that never changes
- ☐ B. A type of chart or graph
- ☐ C. A column heading label
- ☐ D. A ready-made job that works something out for you

Q3. A function's answer is always...

- ☐ A. a number, never a label
- ☐ B. a word describing the range
- ☐ C. a color
- ☐ D. a formula shown as text

Q4. In B2:B7, what does the colon mean?



- ☐ A. divide
- ☐ B. greater than
- ☐ C. through
- ☐ D. equals

Q5. What does MAX give you?

- ☐ A. The largest value in the range
- ☐ B. The smallest value in the range
- ☐ C. The total of the range
- ☐ D. The number of cells

Q6. Which function finds the smallest value in a range?

- ☐ A. SUM
- ☐ B. MAX
- ☐ C. SORT
- ☐ D. MIN

Q7. Which function adds up every value in a range?



- ☐ A. MIN
- ☐ B. MAX
- ☐ C. SORT
- ☐ D. SUM

Q8. Where do the round brackets go in a function like =SUM(B2:B7)?

- ☐ A. Before the equals sign
- ☐ B. At the very end of the row
- ☐ C. Right after the function name, holding the range
- ☐ D. Inside the colon

Q9. Anaya changes Wednesday's value. What happens to =SUM(B2:B7)?

- ☐ A. It stays exactly the same
- ☐ B. It updates automatically to the new total
- ☐ C. It shows an error
- ☐ D. It needs to be retyped by hand

Q10. How many cells does the range B2:B7 cover?

- ☐ A. Five
- ☐ B. Seven
- ☐ C. Six
- ☐ D. Two

Section B - Medium

Q11. What number does =SUM(B2:B7) show?

240+310+180+420+275+355

SUM = 1780

- ☐ A. 1450
- ☐ B. 1660
- ☐ C. 1780
- ☐ D. 1930

Q12. Anaya writes =SUM(B2:B7) in B9, and also types the number 1780 by hand into cell D2. Monday's takings are later corrected from 240 to 300. Which cell shows the new, correct total?

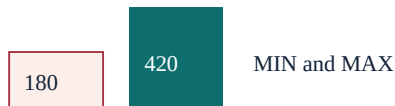
- ☐ A. Both cells update
- ☐ B. Only B9, the formula cell
- ☐ C. Only D2, the typed cell
- ☐ D. Neither cell updates

Q13. Anaya types SUM(B2:B7) and forgets the equals sign. What appears in the cell?

- ☐ A. The total, 1780
- ☐ B. An error message
- ☐ C. The number 0

- ☐ D. The letters SUM(B2:B7) as text

Q14. What do =MIN(B2:B7) and =MAX(B2:B7) give?



- ☐ A. 240 and 355
- ☐ B. 180 and 420
- ☐ C. 420 and 180
- ☐ D. 180 and 355

Q15. Which two functions together would tell you both the best and worst day's takings?

- ☐ A. SUM and SORT
- ☐ B. SUM and MAX
- ☐ C. COUNT and SUM
- ☐ D. MIN and MAX

Q16. What does =SUM(B2:B4) show?

- ☐ A. 730
- ☐ B. 550
- ☐ C. 910
- ☐ D. 1150

Q17. Which formula adds only Thursday, Friday and Saturday's takings?



- ☐ A. =SUM(B5:B7)
- ☐ B. =SUM(B2:B7)
- ☐ C. =SUM(B2:B4)
- ☐ D. =SUM(B6:B7)

Q18. Friday's takings are corrected from 275 to 500. What does =MAX(B2:B7) show now?

- ☐ A. 420
- ☐ B. 355
- ☐ C. 500
- ☐ D. 300

Q19. What does =MAX(B4:B6) show?

- ☐ A. 275
- ☐ B. 355
- ☐ C. 420
- ☐ D. 180

Q20. What does =MIN(B5:B7) show?

- ☐ A. 275
- ☐ B. 355
- ☐ C. 420
- ☐ D. 180

Section C - Challenge

Q21. Anaya wants the sheet to show the difference between the best and worst day's takings, as a single number. Which formula would give her that?



- ☐ A. =SUM(B2:B7)
- ☐ B. =MAX(B2:B7)+MIN(B2:B7)
- ☐ C. =MIN(B2:B7)-MAX(B2:B7)
- ☐ D. =MAX(B2:B7)-MIN(B2:B7)

Q22. Kabir says '=MAX(B2:B7) tells you which day was best.' What is the real problem with his claim?

- ☐ A. MAX only works on money, not on days
- ☐ B. MAX would show 0, since column A holds text
- ☐ C. MAX returns the number 420, not the day's name — you must read across the row to find Thursday

- ☐ D. MAX cannot be used on a range with six cells

Q23. Thursday is corrected from 420 to 300. Which statement correctly describes what happens to the three functions?

- ☐ A. SUM changes to 1660 and MAX changes to 355; MIN stays 180
- ☐ B. All three functions change to new values
- ☐ C. Only SUM changes; MIN and MAX both stay the same
- ☐ D. MIN changes to 300; SUM and MAX stay the same

Q24. Sunday's Rs. 150 is typed into B8, but =SUM(B2:B7) still shows 1780. Why?

B2:B7 six days

B8 Sunday left out

- ☐ A. Sheets ignores any value above 100
- ☐ B. B8 is outside the B2:B7 range, so the function never looks at it
- ☐ C. The equals sign in B9 was typed wrong
- ☐ D. SUM only works with exactly six numbers, never seven

Q25. Ms. Rao says a function is 'a machine that keeps answering,' rather than 'a picture of an answer.' Which classroom action best demonstrates the difference?

- ☐ A. Changing a value in the range and watching the total update on its own
- ☐ B. Reading the SUM value out loud once
- ☐ C. Copying the total and pasting it into a new document
- ☐ D. Printing the sheet on paper

Q26. Which of these would make =SUM(B2:B7) show an incorrect total, even though the formula itself is typed correctly?

- ☐ A. One of the six daily numbers was typed into the wrong cell, outside B2:B7
- ☐ B. The function name is written in capital letters
- ☐ C. The colon is used inside the brackets
- ☐ D. The range covers six rows instead of five

Q27. Which formula gives the total takings for just the weekend, Friday and Saturday?

Fri

Sat

- ☐ A. =SUM(B2:B7)
- ☐ B. =SUM(B6:B7)
- ☐ C. =SUM(B2:B5)
- ☐ D. =MAX(B6:B7)

Q28. Kabir suggests typing =240+310+180+420+275+355 by hand would give the same result as =SUM(B2:B7). Is there a real difference between the two?

- ☐ A. No real difference — Sheets treats them identically forever
- ☐ B. Yes — the hand-typed version is always faster to calculate
- ☐ C. Yes — the hand-typed sum keeps its old number when a value changes; SUM(B2:B7) re-reads it automatically
- ☐ D. No, because both formulas lack an equals sign

Q29. A new column C is added showing each day's takings doubled. Would =SUM(B2:B7) need to change to include column C?

- ☐ A. Yes, SUM expands automatically to nearby new columns
- ☐ B. No — SUM(B2:B7) only looks at column B, not C
- ☐ C. No, because doubling doesn't count as new data
- ☐ D. Yes, but only if column C is renamed to B

Q30. A classmate argues that since =MIN(B2:B7) and =MAX(B2:B7) both look at the exact same range, they must always give the same answer. What's wrong with that argument?

- ☐ A. MIN and MAX always give the same answer when the range is identical
- ☐ B. MIN always returns 0 regardless of the range
- ☐ C. MAX cannot be used on the same range as MIN
- ☐ D. The range only picks the cells; MIN and MAX still ask different questions

Answer Key

Q1: (B) (b) An equals sign. A capital letter in (d) is tempting because SUM is written in capitals, but the capitals are just how the name is spelled — the equals sign is what makes Sheets work anything out.

Q2: (D) (d) A ready-made job that works something out for you, like SUM, MIN or MAX. Option (c) is a spreadsheet feature, but a heading just labels a column — it does not calculate anything.

Q3: (A) (a) a number, never a label — `=MAX(B2:B7)` gives 420, not "Thursday". Option (d) describes what happens only if the equals sign is missing, which turns the whole thing into plain text instead of a working function.

Q4: (C) (c) "through" — B2:B7 means every cell from B2 down to B7, six cells in a row. Option (d), "equals", is what the very first symbol of the function does instead.

Q5: (A) (a) The largest value in the range. Option (b) describes MIN — the two names are short and easy to swap, so it is worth saying "MAX is maximum, the biggest" out loud.

Q6: (D) (d) MIN. Option (b), MAX, is the classic mix-up — MAX finds the biggest value, the exact opposite job.

Q7: (D) (d) SUM. MAX in (b) is the usual mix-up: MAX gives you the single biggest value in the range, not everything added together.

Q8: (C) (c) Right after the function name, holding the range — in `=SUM(B2:B7)`, the brackets wrap around B2:B7. Option (a) is impossible: the equals sign always comes first, before the name or the brackets.

Q9: (B) (b) It updates automatically to the new total — that is exactly what Anaya tested with the Wednesday value, and why Kabir called it "a machine that keeps answering." Option (d) is the opposite of the point: nobody needs to retype anything.

Q10: (C) (c) Six — B2:B7 counts B2, B3, B4, B5, B6 and B7. Option (b), seven, is what you would get by counting the header row 1 as well, but the range only starts at row 2.

Q11: (C) (c) 1780. Working: $240 + 310 = 550$, $+ 180 = 730$, $+ 420 = 1150$, $+ 275 = 1425$, $+ 355 = 1780$. Option (b) 1660 is what you get if Thursday is read as 300 instead of 420; option (d) 1930 is the total if an extra day of 150 is included.

Q12: (B) (b) Only B9, the formula cell — a formula recalculates whenever a value in its range changes, but a hand-typed number like the one in D2 just sits there until someone edits it again. Option (a) is the mistake Kabir's "machine that keeps answering" line warns against: only the real formula keeps working.

Q13: (D) (d) The cell shows the letters SUM(B2:B7) as plain text. An error message in (b) is the tempting guess, but Sheets does not think anything is wrong — without the equals sign it believes you simply wanted to type those letters.

Q14: (B) (b) 180 and 420 — Wednesday is the smallest, Thursday the largest. Option (c) has the right two numbers in the wrong order, which is what happens when MIN and MAX get swapped.

Q15: (D) (d) MIN and MAX — MIN finds the worst day's takings and MAX finds the best day's, using the same range for both. Option (b), SUM and MAX, gives a total and a best day, but

never tells you the worst day at all.

Q16: (A) (a) 730 — B2:B4 covers Monday (240), Tuesday (310) and Wednesday (180), and $240 + 310 + 180 = 730$. Option (c), 910, is what you get by also counting Thursday's 420, which sits outside this range.

Q17: (A) (a) $=\text{SUM}(B5:B7)$ — B5 is Thursday, B6 is Friday and B7 is Saturday, exactly the last three days. Option (d), $=\text{SUM}(B6:B7)$, leaves Thursday out entirely.

Q18: (C) (c) 500 — once Friday becomes 500, it overtakes Thursday's 420 as the largest value in B2:B7. Option (a), 420, was correct before the correction but is now out of date.

Q19: (C) (c) 420 — B4:B6 covers Wednesday (180), Thursday (420) and Friday (275), and 420 is the biggest of those three. Option (b), 355, is Saturday's value, but Saturday (B7) sits outside this range.

Q20: (A) (a) 275 — B5:B7 covers Thursday (420), Friday (275) and Saturday (355), and 275 is the smallest of those three. Option (d), 180, is Wednesday's value, but Wednesday (B4) sits outside this range.

Q21: (D) (d) $=\text{MAX}(B2:B7)-\text{MIN}(B2:B7)$ gives $420 - 180 = 240$, the gap between the best and worst day. Option (c) has the two functions the wrong way round, which would give a negative number instead of the actual difference.

Q22: (C) (c) MAX returns the number 420, not the day's name — you must read across the row to find Thursday. Option (b) is wrong because MAX never looks at column A at all; it simply is not part of the range B2:B7, so it does not affect the result one way or another.

Q23: (A) (a) SUM changes to 1660 and MAX changes to 355, but MIN stays 180. The total drops by 120 because 420 became 300; MAX moves to Saturday's 355 because 300 is no longer the biggest; and MIN is untouched because Wednesday's 180 was never the number that changed. Option (c) is wrong because it misses that MAX also changes, not just SUM.

Q24: (B) (b) B8 is outside the B2:B7 range, so the function never looks at it — the formula is doing exactly what it was told, even though the instruction itself is now out of date. Option (a) is invented; Sheets has no rule about ignoring values above 100.

Q25: (A) (a) Changing a value in the range and watching the total update on its own is exactly what Anaya tried with Wednesday's number, and it is the moment Kabir called the sheet "a machine that keeps answering." Option (c), copying the total elsewhere, freezes it as a fixed number that no longer updates.

Q26: (A) (a) One of the six daily numbers was typed into the wrong cell, outside B2:B7 — the formula itself would still be perfectly correct, but it would be adding up the wrong six cells. Option (d) is not a mistake at all: the range genuinely does cover six rows, from B2 to B7.

Q27: (B) (b) $=\text{SUM}(B6:B7)$ — B6 holds Friday and B7 holds Saturday, exactly the weekend. Option (a), $=\text{SUM}(B2:B7)$, adds every day of the week, not just the two weekend days.

Q28: (C) (c) Yes — if a daily value later changes, the hand-typed addition keeps using the old number written straight into the formula, while $\text{SUM}(B2:B7)$ automatically re-reads whatever is currently in the cell. Option (a) misses this exact difference, which is the whole reason Ms. Rao chose "let the sheet do it" instead of typing numbers by hand.

Q29: (B) (b) No — SUM(B2:B7) only ever looks at column B, so column C stays invisible to it unless the range or the formula itself is changed. Option (a) invents a behaviour Sheets does not have: formulas never expand themselves to include nearby new columns automatically.

Q30: (D) (d) The range only decides which cells are examined — MIN and MAX still ask two different questions of those same six cells: which is smallest, and which is largest. Option (a) is the mistake in the argument: looking at the same data does not mean asking the same question about it.

You've got this! Keep learning and shining! - Ruchi Math Coaching