

Positive Sequences

For each sequence:

1. Build a Table of Values
2. Label RISE / RUN / X_1 / Y_1
3. Substitute the values into the slope-point form equation: $y - y_1 = \frac{\text{rise}}{\text{run}}(x - x_1)$
4. Complete the algebraic steps to rearrange the formula into y-intercept form $y = mx + b$.

MILD

1. 2, 4, 6, ...
2. 5, 8, 11, ...
3. 7, 10, 13, ...
4. 12, 15, 18, ...
5. 3, 7, 11, ...

SPICY

11. 4.5, 7.0, 9.5, ...
12. 0.2, 1.1, 2.0, ...
13. $\frac{3}{2}$, $\frac{7}{2}$, $\frac{11}{2}$, ...
14. -12, 6, 24, ...
15. -33, 3, 39, ...

MEDIUM

6. 1, 8, 15, ...
7. 10, 17, 24, ...
8. -9, -2, 5, ...
9. 90, 160, 230, ...
10. -49, -35, -21, ...

EXTRA SPICY

16. -51, -19, 13, ...
17. -42, -29, -16, ...
18. 7.25, 15.5, 23.75, ...
19. -100, -48, 4, ...
20. $\frac{5}{3}$, $\frac{9}{3}$, $\frac{13}{3}$, ...

● Mild

1. A music app shows total songs downloaded: **48 songs, 52 songs, 56 songs** after each day. How many songs will there be after Day 7?

● Medium

2. A swimmer increases her lap total each practice: **30 laps, 38 laps, 46 laps**. How many laps will she complete in Practice 6?
3. A climber tracks her elevation on a hike. She starts at **200 m**, then after 1 km she is at **230 m**, and after 2 km she is at **260 m**. What elevation will she be at after 10 km?

🔥 Spicy

4. A submarine's depth readings are **-350 m, -310 m, -270 m** every minute. What will the depth be after 10 minutes?
5. A savings account starts at a **-\$12 balance** (overdrawn). After one paycheck it's **-\$4**, and after the next it's **\$4**. What will the balance be after 5 paychecks?

🔥🔥 Extra Spicy

6. A drone flies a rescue pattern. It is **-120 m** below the ridge, then **-50 m**, then **20 m** above the ridge on consecutive passes. Where will it be on Pass 12?
7. A steel bar is heated gradually. Its length readings are **146.2 mm, 153.9 mm, 161.6 mm** every 30 seconds. What will the length be after the 7th reading?