SAT PRACTICE DRILL PACK

100 Questions, Full Explanations, 8-Week Planner



Contents

How to Use This Book 5

Disclaimer 8

How These Drills Match the Digital SAT 9

Pacing Targets by Domain 12

The Blind Review Method 15

The 8-Week Drill Planner 18

Set 1: Algebra 20

Answer Key: Set 1 23

Answer Explanations: Set 1 24

Set 2: Advanced Math 27

Answer Key: Set 2 30

Answer Explanations: Set 2 31

Set 3: Advanced Math, Harder 34

Answer Key: Set 3 37

Answer Explanations: Set 3 38

Set 4: Problem-Solving and Data Analysis 41

Answer Key: Set 4 44

Answer Explanations: Set 4 45

Set 5: Geometry and Trigonometry 47

Answer Key: Set 5 49

Tools you should practice with

In Bluebook you can annotate (highlight and add notes) in Reading and Writing passages, strike out answer choices with the Answer Eliminator, use Mark for Review, and move freely between questions within a module through the question navigator. In Math you have the built-in Desmos graphing calculator for the entire section and an on-screen reference sheet. The reference sheet covers circle area and circumference, rectangle and triangle area, the Pythagorean theorem, the special right triangles (30-60-90 and 45-45-90), volumes of a rectangular prism, cylinder, sphere, cone, and pyramid, the facts that a circle has 360 degrees or 2π radians, and that a triangle's angles add up to 180 degrees. It does not include the quadratic formula, the slope formula, or trig identities, so those need to be in your head.

> **Pacing note:** The Bluebook timer can be hidden, but it reappears with an alert at the 5-minute mark. During drills, glance at your timer at the halfway point of each set. If you are behind, start marking and skipping the slowest-looking questions.

Set 1: Algebra

This set covers linear equations in one and two variables, linear functions, systems of two linear equations, and linear inequalities. Algebra makes up about 35% of the Math section, and many of these questions appear early in a module, where accuracy decides your routing.

> **Pacing note:** Timed target: 19 minutes for 12 questions (about 95 seconds each). Aim to finish the first six in well under half the time and spend the savings on questions 9 through 12.

Questions 3, 7, and 11 are student-produced response questions.

1. If $4x - 7 = 2x + 9$, what is the value of x?

A. 1

B. 4

C. 8

D. 16

2. A plumber charges a fixed fee for each job plus an hourly rate. The total charge C, in dollars, for a job that lasts h hours is given by $C = 85h + 60$. What is the best interpretation of 60 in this context?

A. The charge for each hour of work

B. The fixed fee charged for each job

C. The total charge for a job that lasts 1 hour

D. The number of hours the plumber works on a job

3. A line in the xy-plane passes through the points (2, 5) and (6, 17). What is the slope of the line?

Student-produced response: enter your answer.

4. The system of equations below has solution (x, y).

$3x + 2y = 19$

$x - 2y = 1$

Answer Explanations: Set 1

1. **C.** Subtract 2x from both sides to get 2x - 7 = 9, then add 7 to get 2x = 16, so x = 8. Check: 4(8) - 7 = 25 and 2(8) + 9 = 25. Choice A (1) comes from subtracting the constants in the wrong direction, 9 - 7 = 2, and then solving 2x = 2. Choice B (4) comes from dividing 16 by 4, the original coefficient of x, instead of by 2, the coefficient after combining terms. Choice D (16) is the value of 2x, not x: the classic "stopped one step early" trap. This is a by-hand question. Desmos would work but would take longer than the two steps above.
2. **B.** In C = 85h + 60, the term 85h changes with the number of hours, and 60 does not. When h = 0, C = 60, so 60 is the part of the charge that applies to every job regardless of length: the fixed fee. Choice A describes 85, the coefficient of h, which is the rate per hour. Choice C is the value of C when h = 1, which is 85 + 60 = 145, not 60. This trap swaps "the constant" for "the total for one unit." Choice D confuses the constant with the variable h. Interpretation questions almost always come down to one test: what does this number represent when the input is zero (for the constant) or when the input goes up by one (for the coefficient)?
3. **3.** Slope is the change in y divided by the change in x: (17 - 5)/(6 - 2) = 12/4 = 3. Acceptable entry: 3. The most common wrong entry is 1/3, from dividing the change in x by the change in y. Another is -3, from subtracting the coordinates in mismatched order: (17 - 5)/(2 - 6). Keep the same point first in both the numerator and the denominator. The slope formula is not on the reference sheet, so it needs to be memorized.
4. **D.** Add the two equations. The y terms cancel: 3x + x + 2y - 2y = 19 + 1, so 4x = 20 and x = 5. Substitute into x - 2y = 1: 5 - 2y = 1, so y = 2. Then x + y = 7. Choice A (2) is the value of y alone, and choice C (5) is the value of x alone. Both are "answered a different question" traps, which are especially common when the question asks for a combination such as x + y. Choice B (3) is x - y. In Desmos, typing both equations and clicking the intersection shows (5, 2) in seconds, but elimination by hand is just as fast here because the y coefficients are already opposites.

> **Trap:** When a question asks for x + y, 2x, or another combination, underline it before you solve. Answer choices almost always include the value of each variable alone.

5. **A.** Subtract 5 from both sides: -2x > 6. Divide both sides by -2 and flip the inequality sign: x < -3. Of the choices, only -4 is less than -3. Check: 5 - 2(-4) = 13, and 13 > 11. Choice B (-3) gives 5 + 6 = 11, and 11 > 11 is false. This is the boundary-value trap: the boundary is not included in a strict inequality. Choices C (0) and D (3) satisfy x > -3, which is what