

SAT Math – Linear & Systems Practice (Easy → Medium → Hard)

Name: _____ Date: _____

Easy Questions

- 1) Solve for x : $2x + 5 = 15$
- 2) Solve for x : $5x - 3 = 2x + 9$
- 3) A taxi charges a \$4 flat fee plus \$2 per mile. Write a function $C(m)$ that represents the total cost C in dollars as a function of m miles.

Medium Questions

- 4) Solve for x : $3(x - 2) = 2(x + 4)$
- 5) A gym charges a one-time signup fee of \$30 and \$25 per month. If Noah has paid a total of \$155, how many months has he been a member?
- 6) The sum of two consecutive integers is 73. What is the larger integer?
- 7) The function $f(x) = 7x + 4$ models the cost (in dollars) of buying x notebooks. What does the 4 represent in this function?

Hard Questions

- 8) Solve the system of equations:
$$\begin{aligned} 3x + 2y &= 16 \\ x - y &= 1 \end{aligned}$$
- 9) A phone plan charges \$20 per month plus \$0.05 per text message. Another plan charges \$10 per month plus \$0.10 per text message. For how many text messages t will the two plans cost the same?
- 10) A line passes through $(-2, 5)$ and $(4, -1)$. Write the equation of the line in slope-intercept form.

Answer Key – SAT Math Linear & Systems Practice

- 1) $x = 5$
- 2) $x = 4$
- 3) $C(m) = 4 + 2m$
- 4) $x = 10$
- 5) 5 months
- 6) 37
- 7) A fixed cost of \$4 (e.g., a one-time fee or base price).
- 8) $x = 3, y = 2$
- 9) $t = 200$ text messages
- 10) $y = -x + 3$