

Pre-Algebra Practice Test III-Version Two

Name
Date
Course

Instructions

- i) As always, write a title, name, date, and course.
- ii) Number each problem, circle the number, and show all work.
- iii) Draw a rectangle around your answers.
- iv) Rewrite the equation whenever you perform an operation on both sides to preserve the result of the previous step.

Solve.

- ① $7 - 3x = 5x + 1$
- ② $-2y + 1 - 8y = 1 + y$
- ③ $1 - 2(-z + 4) = 4(2z + 1)$
- ④ $5x + 2 = 1 - 4x$
- ⑤ $6 + 2 = 1 - (2x + 4)$
- ⑥ $-2(-4z + 2) = 3$
- ⑦ $-5 - 7x = 1 - x$

Evaluate.

- ⑧ $\frac{x}{2} + 1, x = -6$
- ⑨ $2 - y, y = -3$
- ⑩ $-2z + 4, z = -10$
- ⑪ $\frac{2}{x+5} + 9, x = -4$

⑫ $6 + 4(3 - 4x)^2, x = 1$

⑬ $-5y^2 + y, y = 3$

⑭ $3 + 2(3 - z)^2, z = -1$

⑮ a) $x^2, x = 8$ b) $-y^3, y = 2$ c) $-z^2, z = 4$ d) $-x^2, x = -5$

⑯ a) $-5z^2, z = -3$ b) $7x^2, x = -1$

⑰ $-z - 6z^2 + 1, z = -2$

⑱ $-3(x + 5) - 2x^2 + 1, x = -3$

⑲ $\frac{y+6}{2y-3} - 1 + 6(-y+2)^2, y = -1$

⑳ a) Find V_x if $V_x = -\frac{b}{2a}$, $b = 3$ and $a = -3$.
b) Find A if $A = \frac{bh}{2}$, $b = 10$ and $h = 2$.

㉑ a) Find A if $A = P + Prt$ and $P = 1200$, $r = 0.09$, and $t = 2$.
b) Find F if $F = \frac{9}{5}(C + 32)$ and $C = -17$.

Check the solutions below. If correct, write "True." If incorrect, write "False." Show the work that leads to your answer.

㉒ a) $-2 + x = 7x - 1, x = 0$ b) $-5y + y + 6 = 2 - 3y + y, y = -2$

㉓ a) $-2z + 16 - 3z = 3z, z = 2$ b) $56 - 3x + 4x = -3x - 10x, x = -4$

Solve.

㉔ $-1 + 2(z - 1) - 2(-3z - 2) = -3(-3 + 3z) + 9$

㉕ $-6(2y + 3) + 4y - 8y + 2 = 5y + 3(y - 4) + 2(2y - 3)$

Pre-Algebra Practice Test III - Version Two Answers

① $x = \frac{3}{4}$

② $y = 0$

③ $z = -1\frac{1}{6}$

④ $x = -\frac{1}{9}$

⑤ $x = -1\frac{1}{2}$

⑥ $z = \frac{7}{8}$

⑦ $x = -1$

⑧ -2

⑨ 5

⑩ 24

⑪ 11

⑫ 10

⑬ -42

⑭ 35

⑮ a) 64 b) -8 c) -16 d) -25

⑯ a) -45 b) 7

⑰ -21

⑱ -23

⑲ 52

⑳ a) $v_x = \frac{1}{2}$ b) $A = 10$

㉑ a) $A = 1416$ b) $F = 27$

㉒ a) $-2 \neq -1$ False

b) $14 \neq 6$ False

㉓ a) $6 = 6$ True

b) $52 = 52$ True

㉔ $z = 1$

㉕ $y = \frac{1}{14}$