

The Weekly Rigor

No. 117

“A mathematician is a machine for turning coffee into theorems.”

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SAT Math Test Problem Children: Solving Simple Equations

(Part 2)

PROBLEMS

1. If $\frac{x-1}{3} = k$ and $k = 3$, what is the value of x ?

2. If $\frac{x-1}{4} = k$ and $k = 5$, what is the value of x ?

3. If $\frac{x-1}{2} = k$ and $k = 4$, what is the value of x ?

4. If $\frac{x-1}{4} = k$ and $k = 4$, what is the value of x ?

5.

$$\sqrt{x-a} = x-4$$

If $a = 2$, what is the solution set of the equation above?

6.

$$\sqrt{x-a} = x-4$$

If $a = 4$, what is the solution set of the equation above?

7.

$$\sqrt{x - a} = x - 5$$

If $a = -15$, what is the solution set of the equation above?

8.

$$\sqrt{x - a} = x - 3$$

If $a = 1$, what is the solution set of the equation above?

9. If $a = 5\sqrt{2}$ and $3a = \sqrt{2x}$, what is the value of x ?

10. If $a = 7\sqrt{2}$ and $3a = \sqrt{2x}$, what is the value of x ?

11. If $a = 3\sqrt{3}$ and $3a = \sqrt{3x}$, what is the value of x ?

12. If $a = 4\sqrt{2}$ and $2a = \sqrt{2x}$, what is the value of x ?

“Only he who never plays, never loses.”

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