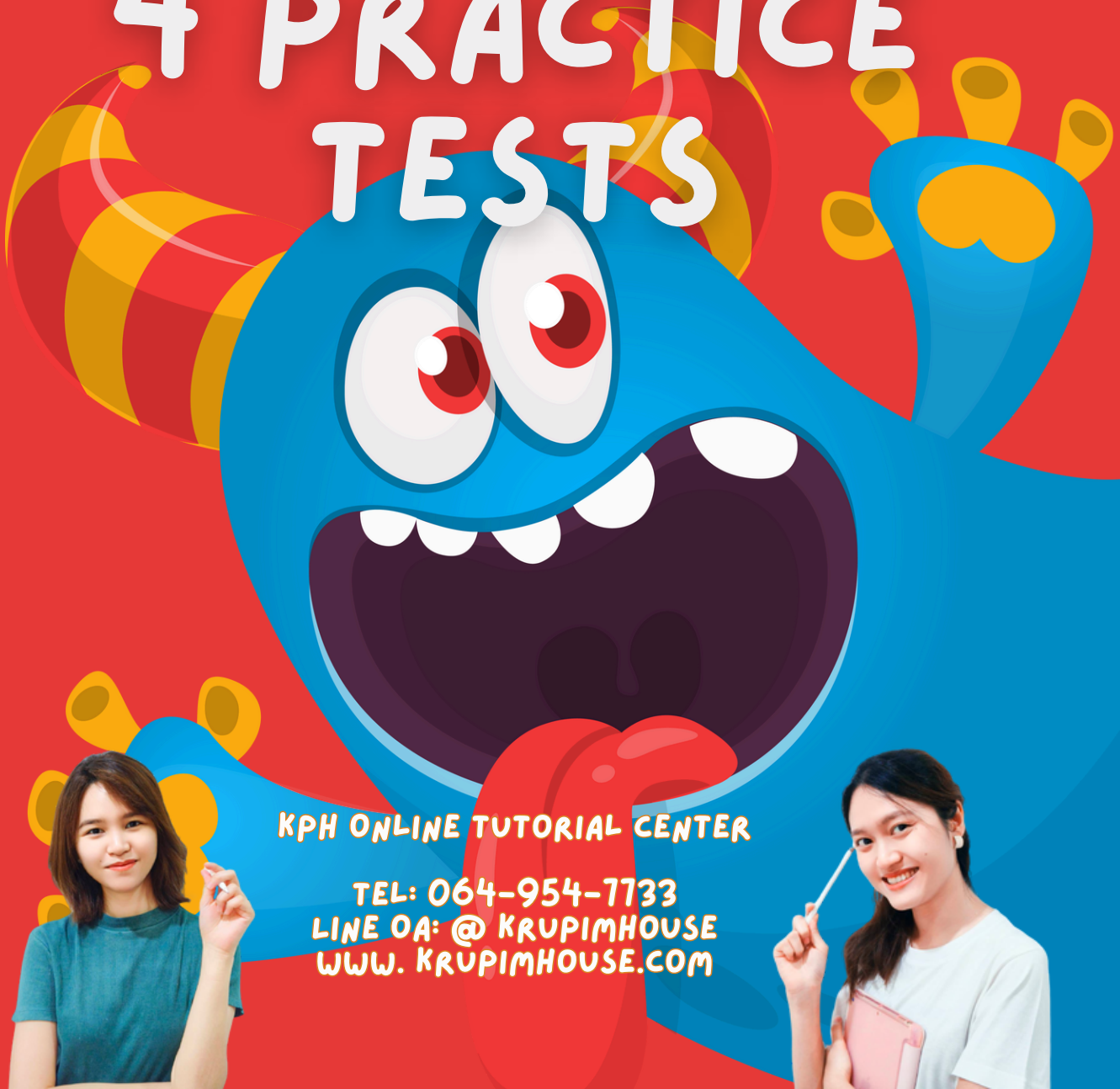
By Krupimhouse

KPH

HOUSE of KNOWLEDGE AND POTENTIAL

# DIGITAL SAT MATH 4 PRACTICE TESTS

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# Digital SAT Math - 4 Practice Tests

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# Practice Test 1

## 1.1 Module 1

**Question 1**

What is 10% of 520?

A) 42

B) 52

C) 423

D) 460

**Question 2**

Which equation has the same solution as the given equation?

$$5x + 7 = 22$$

A) $5x = 15$

B) $5x = 25$

C) $5x = 10$

D) $5x = 5$

**Question 3**

The total cost, in dollars, to rent a surfboard consists of a \$30 service fee and a \$12 per hour rental fee. A person rents a surfboard for $t$ hours and intends to spend a maximum of \$90 to rent the surfboard. Which inequality represents this situation?

A) $12t \leq 90$

B) $30 + 12t \leq 90$

C) $30t \leq 90$

D) $12 + 30t \leq 90$

**Question 4**

The function $g$ is defined by $g(x) = x^2 + 9$. For which value of $x$ is $g(x) = 34$?

A) 4

B) 5

C) 9

D) 13

**Question 5**

Each face of a fair 16-sided die is labeled with a number from 1 through 16, with a different number appearing on each face. If the die is rolled one time, what is the probability of rolling a 3?

A) $\frac{1}{16}$

B) $\frac{2}{16}$

C) $\frac{12}{16}$

D) $\frac{15}{16}$

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### Question 6

A factory produces widgets at a constant rate of 120 widgets per minute. At what rate, in widgets per hour, does the factory produce the widgets?

### Question 7

The function $f$ is defined by the equation $f(x) = 3x + 5$. What is the value of $f(4)$?

### Question 8

A teacher is creating an assignment worth 80 points. The assignment will consist of questions worth 2 points and questions worth 4 points. Which equation represents this situation, where $x$ represents the number of 2-point questions and $y$ represents the number of 4-point questions?

A) $2x + 4y = 80$

B) $4x + 2y = 80$

C) $x + y = 80$

D) $2x - 4y = 80$

### Question 9

Right triangles $ABC$ and $DEF$ are similar, where $A$ and $B$ correspond to $D$ and $E$, respectively. Angle $B$ has a measure of $37°$. What is the measure of angle $E$?

A) $37°$

B) $53°$

C) $127°$

D) $143°$

### Question 10

Solve the system of equations:

$$\begin{cases} y = 2x - 5 \\ 3x + 4y = 20 \end{cases}$$

Which of the following is closest to the value of $x$?

A) 1

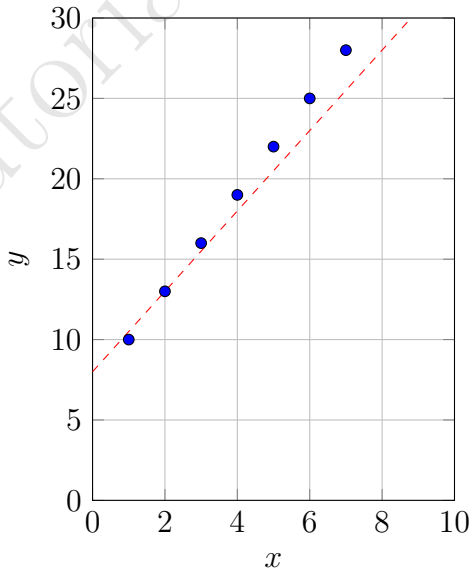
B) 3

C) 5

D) 7

### Question 11

The scatterplot below shows the relationship between two variables, $x$ and $y$. Which of the following equations is the most appropriate linear model for the data?




A) $y = 2.5x + 8$

B) $y = -2.5x + 8$

C) $y = 2.5x - 8$

D) $y = -2.5x - 8$

### Question 12

The graph of $y = f(x)$ is shown below, where the function $f$ is defined by $f(x) = ax^3 + bx^2 + cx + d$ and $a, b, c$, and $d$ are constants. For how many values of $x$ does $f(x) = 0$?

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