

Computation Questions on Standardized Tests

Many standardized tests like the HSPT, ISEE, ACT, and SAT will ask you to perform basic arithmetic computations. You will not see any variables in the questions, just words and numbers.

The trick is to work bit-by-bit and not try to solve the whole problem at once. First, going in order of how they appear in the problem (except for *), translate the words into an equation using the written Clues in the table below. Then work step-by-step to solve the equation (isolate the variable) using the proper order of operations.

Operation	Clues
Variable	number what
Equals	equal is/are result leaves
Add	added more greater increased plus sum
Subtract	subtracted from* less than* minus difference (<i>use absolute values</i>)
Multiply	times product of twice ($\times 2$)
Divide	divided half ($\div 2$) quotient
Exponent	square (2) cube (3)
Move decimal	percent or % (<i>move decimal 2 to the left in problem</i>) what percent (<i>move decimal 2 to the right in answer</i>)

* *Switch the order*

Practice:

- 1) What number is 11 more than 5 squared?

- 2) What is 3 times the difference of 75 and 30?

- 3) What is 17 more than twice the difference between 15 and 17?

- 4) $\frac{1}{3}$ of what number added to 6 is 2 times 9?

- 5) $\frac{2}{3}$ of what number minus 8 is equal to the quotient of 40 and 10?

6) What number divided by 2 leaves 4 more than 6?

7) What number divided by 3 is $\frac{1}{4}$ of 24?

8) What number is 12 more than the result of 4 cubed divided by 4?

9) What number multiplied by 3 is 5 less than 29?

10) What number subtracted from 30 leaves 7 more than $\frac{3}{5}$ of 25?

11) When a number is subtracted from 36, the result is 4 more than the product of 5 and 6. What is the number?

12) What number is 2 less than $\frac{3}{5}$ of 10?

13) What number represents the cube of 7 divided by 7?

14) What number is 160% of 40?

15) 50% of 20% of 200 is what?

Answer Key:

- 1) 36
- 2) 135
- 3) 21
- 4) 36
- 5) 18
- 6) 20
- 7) 18
- 8) 28
- 9) 8
- 10) 8
- 11) 2
- 12) 4
- 13) 49
- 14) 64
- 15) 20