

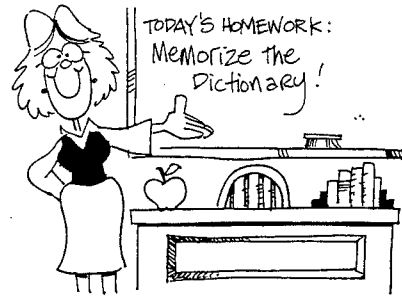
Why Aren't Elephants Allowed On The Beach?

Circle the letter of the correct choice. Write this letter in each box at the bottom of the page that contains the number of the exercise.

①	If the square root of a number is an integer, the number is called a <i>perfect square</i> . One example of a perfect square is (V) 50 (S) 81
②	The square root of a perfect square is an (U) integer (B) irrational number
③	Which of the following lists includes only perfect squares? (I) 49, 144, 16, 1, 64 (L) 81, 49, 100, 2, 9
④	Since 2 is not a perfect square, $\sqrt{2}$ is not an integer. The square root of 2 is a number which, when squared, equals exactly (R) 4 (H) 2
⑤	Let's try to find $\sqrt{2}$. It must be between (A) 1 and 2 (M) 2 and 3
⑥	FACT: $(1.4)^2 = 1.96$ and $(1.5)^2 = 2.25$. Therefore, $\sqrt{2}$ is (E) between 1.4 and 1.5 (O) not between 1.4 and 1.5
⑦	FACT: $(1.41)^2 = 1.9881$ and $(1.42)^2 = 2.0164$. Therefore, $\sqrt{2}$ is (C) between 1.41 and 1.42 (W) not between 1.41 and 1.42
⑧	FACT: $(1.414)^2 = 1.999396$ and $(1.415)^2 = 2.002225$. Therefore, $\sqrt{2}$ is (T) exactly equal to 1.414 (Y) between 1.414 and 1.415
⑨	It can be proved that there is no terminating decimal that, when squared, equals exactly 2. So the decimal for $\sqrt{2}$ in a square root table, when squared, equals (F) exactly 2 (R) approximately 2
⑩	REMEMBER: Every <i>rational number</i> can be represented either by a terminating decimal or by a (K) repeating decimal (D) nonrepeating decimal
⑪	There is no terminating decimal that, when squared, equals 2. It can also be proved that there is no repeating decimal that, when squared, equals 2. Therefore, $\sqrt{2}$ is (N) a rational number (P) not a rational number
⑫	A decimal that never terminates, and never repeats, represents an <i>irrational number</i> . The decimal for $\sqrt{2}$ never terminates or repeats. Therefore, $\sqrt{2}$ is a(n) (M) rational number (N) irrational number
⑬	It can be proved that the square root of every whole number is an irrational number unless the number is (T) a perfect square (S) not a perfect square

13	4	6	8	7	5	12	13	10	6	6	11	13	4	6	3	9	13	9	2	12	10	1	2	11
----	---	---	---	---	---	----	----	----	---	---	----	----	---	---	---	---	----	---	---	----	----	---	---	----

Why Did the Teacher Assign Extra Homework When She Taught Adolescents?



Find which two consecutive whole numbers the square root is between. Write the letter of the exercise on the number line between these two numbers.

Use the top number line for the first set of exercises, and the bottom number line for the rest.

(S) $\sqrt{30}$

(H) $\sqrt{2}$

(T) $\sqrt{45}$

(E) $\sqrt{8}$

(A) $\sqrt{23}$

(N) $\sqrt{120}$

(G) $\sqrt{138}$

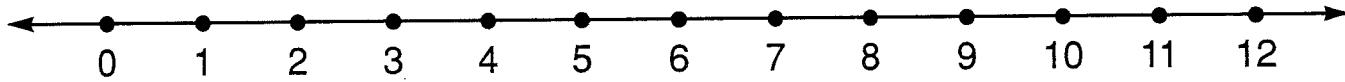
(I) $\sqrt{82}$

(W) $\sqrt{11}$

(Y) $\sqrt{70}$

(S) $\sqrt{0.5}$

(R) $\sqrt{59}$



(S) $\sqrt{75}$

(D) $\sqrt{20}$

(O) $\sqrt{3}$

(A) $\sqrt{6}$

(E) $\sqrt{52}$

(S) $\sqrt{95}$

(O) $\sqrt{112}$

(N) $\sqrt{125}$

(D) $\sqrt{14}$

(T) $\sqrt{0.1}$

(A) $\sqrt{33}$

(L) $\sqrt{40}$

