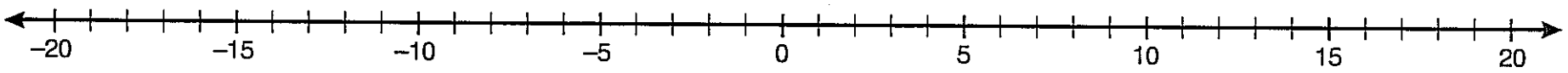
Why Did Jack Flack Jump Up and Down and Twist All Around Before Taking His Medicine?

Write an integer for each exercise. Find the point on the number line corresponding to that integer. Write the letter of the exercise on the number line at that point.



Write an integer for the situation.

- (T) 5 units to the left of zero
- (L) the opposite of 16
- (N) 19 ft above sea level
- (I) 8° below zero
- (B) a gain of 9 yd
- (A) a debt of $15
- (E) five seconds after liftoff
- (S) two floors down
- (U) the opposite of –16

Write an integer for the expression.

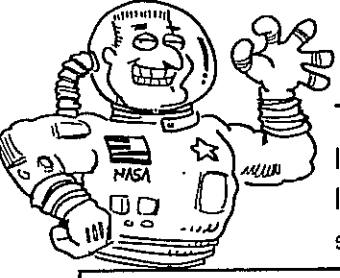
- (T) $-(20)$
- (E) $-(-10)$
- (W) $|-4|$
- (O) $-|-4|$
- (L) $|9-2|$
- (F) $|9|+|-2|$
- (D) $-|9-2|$
- (I) $2|-9|$
- (E) $-|9\cdot 2|$
- (L) $-n$ for $n=12$
- (O) $-b$ for $b=-12$
- (A) $-(-x)$ for $x=-9$
- (E) $|a|+6$ for $a=-8$
- (H) $-|-d|$ for $d=19$
- (S) $-|-w|$ for $w=-10$
- (A) $-|e|+12$ for $e=-12$
- (G) $3|x|+x$ for $x=5$
- (E) $3|k|-13$ for $k=-5$

Write an integer for the question.

- (R) Which is less, $|-14|$ or 13?
- (E) Which is less, $|-14|$ or –13?
- (K) Which is greater, –14 or 1?
- (H) Which is greater, –14 or –1?

Write an integer to complete the statement.

- (L) If $|x|=6$, then $x=-6$ or ____
- (B) If $|n|=14$, then $n=14$ or ____
- (S) If $-|y|=-17$, then $y=-17$ or ____



How Did the Astronaut Feel About Going to Mars?

Indicate whether each statement is true (T) or false (F) by circling the appropriate letter next to it. Write this letter in the box containing the exercise number. If the statement is false, explain why or give a counterexample.

	T	F
1. Each of these numbers is a rational number: $-4 \quad \frac{3}{8} \quad 7.2 \quad 5\frac{1}{2}$ **If false, explain:**	E	N
2. Each of these numbers is a rational number: $-3.83 \quad \frac{17}{7} \quad 0.076 \quad -18\frac{5}{6}$ **If false, explain:**	A	L
3. Any number that can be expressed as the ratio of two integers, $\frac{a}{b}$, is a rational number. **If false, explain:**	O	I
4. Any number that can be expressed as the ratio of two integers, $\frac{a}{b}$, where $b \neq 0$, is a rational number. **If false, explain:**	H	T
5. When you divide the numerator of a fraction by the denominator ($\neq 0$), you always get a decimal that ends (a terminating decimal). **If false, explain:**	C	S
6. When you divide the numerator of a fraction by the denominator ($\neq 0$), you always get either a decimal that terminates or a decimal that repeats a digit or block of digits again and again (a repeating decimal). **If false, explain:**	P	N
7. Each of these decimals represents a rational number: $45.0 \quad 0.45 \quad 0.\overline{45}$ **If false, explain:**	E	I
8. This decimal represents a rational number: 0.202002000200002000 0 . . . **If false, explain:**	N	D
9. This decimal represents a rational number: 0.200200200200200200 . . . **If false, explain:**	W	H
10. The decimal for π, 3.1415926535 . . ., never ends and never repeats any group of digits. Therefore, π is a rational number. **If false, explain:**	S	F
11. The value of π can be expressed as a ratio of two integers, such as $\frac{22}{7}$. **If false, explain:**	O	U
12. The decimal for an irrational number never terminates or repeats. The rational and irrational numbers together form the set of real numbers. **If false, explain:**	R	L

EXTRA: Graph each of these rational numbers: **a.** $\frac{7}{3}$ **b.** $-\frac{11}{4}$ **c.** -4.3 **d.** $\frac{5}{8}$

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