

Bell Work: 3-1

N-RN.2.3

The rectangle shown below has a length of 6 feet.



6 feet

The value of the area of the rectangle, in square feet, is an irrational number.

Therefore, the number that represents the width of the rectangle must be

- A. A whole number
- B. A rational number
- C. An irrational number
- D. A non-real complex number.

factoring when $a > 1$

1) $5x^2 - 18x + 9$

$\begin{array}{c c} a & c \\ 4 & 9 \end{array}$	$\begin{array}{c} b \\ -18 \end{array}$	$A = 5$ $B = -18$ $C = 9$	$\begin{array}{c} 9(5) \\ 4 \ 9 \end{array}$
$\begin{array}{c c} 5(9) & \\ \hline 3(15) & \end{array}$	$\begin{array}{c c} -3 & -15 \\ \hline 5 & 5 \end{array}$		

$$\left(x - \frac{3}{5}\right) \left(x - \frac{15}{5}\right)$$

$$(5x - 3)(x - 3)$$

$$2) \quad 4n^2 - 15n - 25$$

$$\begin{array}{r|l} -100 & -15 \\ 4(25) & \\ 2(50) & \\ 10(10) & \\ 5(20) & 5-20 \\ \hline & 4 \quad 4 \end{array}$$

$$\begin{array}{l} A=4 \\ B=\textcircled{-15} \\ C=-25 \end{array} \quad 4(-25) = -100$$

$$(n + \frac{5}{4})(n - 5)$$

$$(4n + 5)(n - 5)$$

$$3) 15n^2 - 27n - 6 \quad - \quad CCF = 3$$

$$\begin{array}{c|c} -90 & \end{array} \quad \begin{array}{l} A = 15 \\ B = -27 \\ C = -6 \end{array} \quad \begin{array}{l} > 15(-6) = -90 \end{array}$$

$$3(5n^2 - 9n - 2)$$

$$\begin{array}{c|c} -10 & -9 \\ \hline 1(10) & \frac{1-10}{5} \quad \frac{-9}{5} \end{array} \quad \begin{array}{l} A = 5 \\ B = -9 \\ C = -2 \end{array} \quad \begin{array}{l} > 5(-2) = -10 \end{array}$$

$$3\left(n + \frac{1}{5}\right)(n - 2)$$

$$3(5n + 1)(n - 2)$$

$$4) \quad \frac{-6a^2}{-1} - \frac{25a}{-1} - \frac{25}{-1}$$

A cannot be negative

$$GCF = -1$$

$$-1(6a^2 + 25a + 25)$$

150	25
6(25)	
5(30)	
10(15)	10 + 15
	$\frac{10}{6} + \frac{15}{6}$

$$\begin{array}{l} A=6 \\ B=25 \\ C=25 \end{array} > \begin{array}{l} 6(25) \\ = 150 \end{array}$$

$$-1\left(a + \frac{10}{6}\right)\left(a + \frac{15}{6}\right)$$

$$-1\left(a + \frac{5}{3}\right)\left(a + \frac{5}{2}\right) \rightarrow -1(3a+5)(2a+5)$$