8.EE.2 Use square root and cube root symbols to represent solutions to equations of the form $x^2=p$ and $x^3=p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes.

Find the value of $3x-2x^2$ when $x = -3$.

A) -27 $3(-3)-2(-3)^2$

B) -18 $3(-3)-2(9)$

C) 0 $-9-18=-27$

D) 9

A square-shaped playground has an area of 290 ft^2. Approximately how long is one side of the playground?

A) 12 ft $A = 290$ $12^2=144$, $17^2=289$, $30^2=1296$

B) 17 ft $S=\sqrt{A}$ so, $73^2=5329$

C) 36 ft $S=\sqrt{290}$

D) 73 ft $S\approx 17$ ft.

Why is one of the square roots of any positive number less than zero?

A) because a negative number times a negative number is a positive number

B) because a negative number times a negative number is a negative number

C) because a negative number times a positive number is a negative number

D) because a negative number times a positive number is a positive number

Which of the following best represents $\sqrt{39}$?
A number between...

A) 3 and 4 $\sqrt{9}$ $\sqrt{16}$

B) 6 and 7 $\sqrt{36}$ $\sqrt{49}$ * $\sqrt{39}$ is between $\sqrt{36}$ & $\sqrt{49}$

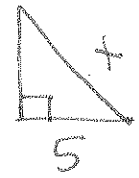
C) 7 and 8 $\sqrt{49}$ $\sqrt{64}$

D) 8 and 10 $\sqrt{64}$ $\sqrt{100}$

A right triangle has legs 5 units and 8 units in length and hypotenuse x unites in length.

Part A: What is the exact value of x? Leave your answers in terms of a square root.

$a^2+b^2=c^2$
$8^2+5^2=c^2$
$64+25=c^2$
$89=c^2$
$c=\sqrt{89}$



Between what two consecutive whole numbers is the value of x? Explain your answer.

$\sqrt{81}$ $\sqrt{100}$
9 10

between 9 & 10 because $9^2=81$ so $\sqrt{81}=9$. $10^2=100$ so $\sqrt{100}=10$. $\sqrt{89}$ is between $\sqrt{81}$ & $\sqrt{100}$ so between 9 & 10.

Part B: The side length of another right triangle is $\sqrt{75}$ units. Determine the length of this side to the nearest tenth. Show your work ad explain your answer.

$\sqrt{75}$ is between $\sqrt{64}$ & $\sqrt{81}$ so between 8 & 9. It is closer to $\sqrt{81}$, so I will try 8.6 first

8.6 × 8.6 = 73.96

8.7 × 8.7 = 75.69

So 8.7 is the best estimate to the tenth.