A student solved the quadratic equation by finding the square root of both sides. In which line is a mistake *first*made?

*b*2 - 4*b* + 4 = 16

|  |  |
| --- | --- |
| Line 1 | (*b* - 2)2 = 16 |
| Line 2 | *b* - 2 = 16 |
| Line 3 | b = 18 |



Line 1



Line 2



Line 3



No mistake was made.

What would you add to both sides of the equation in order to solve the quadratic equation by completing the square?

*a*2 - 5*a* = -4



-2.5



2.5



-6.25



6.25

What would you add to both sides of the equation in order to solve the quadratic equation by completing the square?

5*s*2 - 10*s* = 23



100



5



25



4

What is the exact solution to the quadratic equation?

*x*2 + 4*x* - 2 = 0



x =2 ± √2



x = -2 ± √2



x = 2 ± √6



x = -2 ± √6

Find the value of *c* that would make *x*2 + *cx* + 144 a perfect square.



6



12



24



72