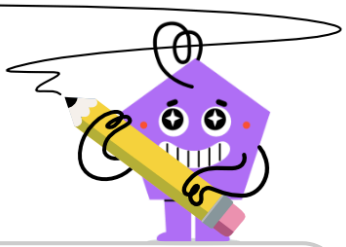
Name

Quadratic Equation Word Problem To Expression - Area and Border



1

A 10 by 3 garden has a ditch of width x on all sides. Its total area, including the ditch is 1.

What equation gives the area of the garden?

A $1 = (2 \cdot 10 + x) \cdot (2 \cdot 3 + x)$

B $1 = (10 + 2x) \cdot (3 + 2x)$

2

A 7 by 10 garden has a ditch of width x on all sides. Its total area, including the ditch is 1.

What equation gives the area of the garden?

A $1 = (7 - \frac{x}{2}) \cdot (10 - \frac{x}{2})$

B $1 = (7 + 2x) \cdot (10 + 2x)$

C $1 = (2 \cdot 7 + x) \cdot (2 \cdot 10 + x)$

3

A 11 by 3 painting has a border of width x on all sides. Its total area (border included) is 1.

What equation gives the area of the painting?

A $1 = (\frac{11}{2} - x) \cdot (\frac{3}{2} - x)$

B $1 = (11 + 2x) \cdot (3 + 2x)$

4

A 7 by 11 painting has a border of width x on all sides. Its total area (border included) is 1.

What equation gives the area of the painting?

A $1 = (7 + 2x) \cdot (11 + 2x)$

B $1 = (\frac{7}{2} - x) \cdot (\frac{11}{2} - x)$

C $1 = (7 - 2x) \cdot (11 - 2x)$

5

A 4 by 11 garden has a ditch of width x on all sides. Its total area, including the ditch is 1.

What equation gives the area of the garden?

A $1 = (4 + 2x) \cdot (11 + 2x)$

B $1 = (2 \cdot 4 + x) \cdot (2 \cdot 11 + x)$

C $1 = (\frac{4}{2} - x) \cdot (\frac{11}{2} - x)$

6

A 5 by 6 garden has a ditch of width x on all sides. Its total area, including the ditch is 1.

What equation gives the area of the garden?

A $1 = (5 - 2x) \cdot (6 - 2x)$

B $1 = (5 + 2x) \cdot (6 + 2x)$

C $1 = (2 \cdot 5 + x) \cdot (2 \cdot 6 + x)$

7

A 2 by 9 garden has a ditch of width x on all sides. Its total area, including the ditch is 1.

What equation gives the area of the garden?

A $1 = (2 - \frac{x}{2}) \cdot (9 - \frac{x}{2})$

B $1 = (\frac{2}{2} - x) \cdot (\frac{9}{2} - x)$

C $1 = (2 + 2x) \cdot (9 + 2x)$

8

A 11 by 6 garden has a ditch of width x on all sides. Its total area, including the ditch is 1.

What equation gives the area of the garden?

A $1 = (11 - \frac{x}{2}) \cdot (6 - \frac{x}{2})$

B $1 = (11 + 2x) \cdot (6 + 2x)$