



Quadratic Equation Word Problem To Optimization (y) - Volume from Sheet

1

What is the maximum volume of the box?

A box is made from a 11cm by 10cm sheet of cardboard by cutting x cm into each side and folding up.

$$\hat{V} = 2.5cm^2 \quad \hat{V} = 0.25cm^2$$

$$\hat{V} = 1cm^2$$

2

What is the maximum volume of the box?

A box is made from a 3cm by 11cm sheet of cardboard by cutting x cm into each side and folding up.

$$\hat{V} = 16cm^2 \quad \hat{V} = 18.25cm^2$$

$$\hat{V} = 15.25cm^2$$

3

What is the maximum volume of the box?

A box is made from a 7cm by 8cm sheet of cardboard by cutting x cm into each side and folding up.

A	B
$V = 0.25cm^2$	$V = 2.5cm^2$

4

What is the maximum volume of the box?

A box is made from a 10cm by 7cm sheet of cardboard by cutting x cm into each side and folding up.

$$\hat{V} = 2.25cm^2 \quad \hat{V} = 0.25cm^2$$

$$\hat{V} = 1.75cm^2$$

5

What is the maximum volume of the box?

A box is made from a 8cm by 10cm sheet of cardboard by cutting x cm into each side and folding up.

$$\hat{V} = 0.75cm^2 \quad \hat{V} = 1cm^2$$

$$\hat{V} = 1.5cm^2$$

6

What is the maximum volume of the box?

A box is made from a 5cm by 5cm sheet of cardboard by cutting x cm into each side and folding up.

$$\hat{V} = 0cm^2 \quad \hat{V} = 2.5cm^2$$

$$\hat{V} = 0.75cm^2$$

7

What is the maximum volume of the box?

A box is made from a 2cm by 4cm sheet of cardboard by cutting x cm into each side and folding up.

A	B
$V = 1.75cm^2$	$V = 1cm^2$

8

What is the maximum volume of the box?

A box is made from a 11cm by 7cm sheet of cardboard by cutting x cm into each side and folding up.

$$\hat{V} = 4cm^2 \quad \hat{V} = 6.5cm^2$$

$$\hat{V} = 2.5cm^2$$