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| **16.** | You are going to make a box by cutting square corners from a sheet of cardboard as shown. | | |
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|  | **a.** | Write a polynomial expression for the area of the bottom of the box. Find the area of the bottom of the box in terms of x. Combine like terms. | 20 in  18 in  *x*  *x* |
|  | **b.** | Write a polynomial expression for the volume of the box. Find the volume of the box in terms of x. Combine like terms. | |
|  | **c.** | Is it possible to use squares that are 12 inches by 12 inches for the corners? Explain. | |