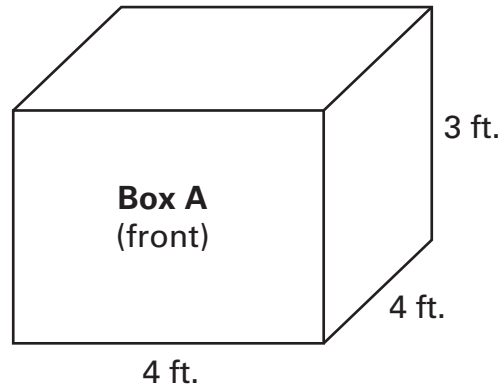


# PE storage box

1. The carpentry class has agreed to help the physical education teacher by building a box to store the athletic equipment on the edge of the field. The plans called for the box to be 3 feet high, 4 feet long, and 4 feet wide. (Call this Box A.) Two students proposed that the box would hold more equipment if it were taller and not as wide. They want the box to be 3 feet wide, 4 feet high, and 4 feet long. (Call this Box B.)

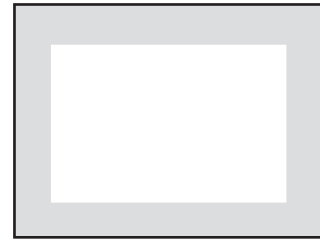
- What is the volume of Box A?
- Which box would hold the most, Box A or Box B?



2. The plans for Box A call for students to paint all sides except the bottom green. What is the area that will be painted?

3. The class decided to paint a yellow border 6 inches wide on the front of Box A. What is the area that will be painted yellow?

4. The school is planning to purchase a rectangular tarp to cover the box. What size tarp should they purchase?



5. Balls arrived at the school in boxes. The dimensions of the boxes are 1 foot by 1 foot by 2 feet. How many of the boxes could you store in Box A?

6. Other equipment comes in different size boxes. The red boxes are 6 inches by 12 inches by 6 inches. The blue boxes are 1.5 feet by 1 foot by 1 foot. If you must use at least two of each kind of box, what is the most boxes you could store in Box A?

7. The circumference of a boy's basketball is approximately 30 in. How many boys' basketballs could you store in Box A?