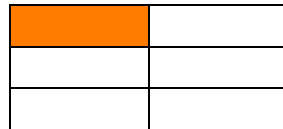Solve each problem. Shade the rectangular region to represent your answer.
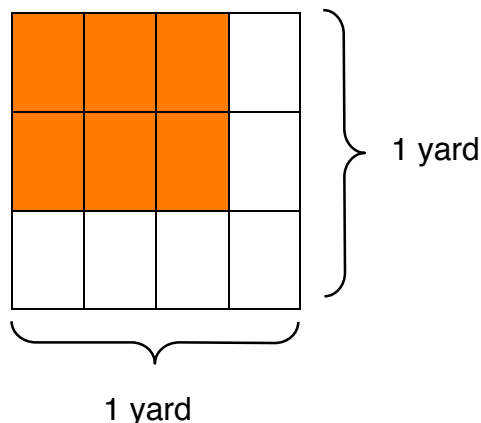
1. Cale bought a chocolate candy bar. He gave $\frac{1}{2}$ of the candy bar to his friend and ate $\frac{1}{3}$ of what was left. How much of the whole candy bar did he eat?

    Cale gave 1/2, or three parts to his friend. He ate 1/3, or one of the three remaining parts. He ate 1/3 of 1/2 of the candy bar. The rectangle represents the whole candy bar. The shaded region represents the amount of the candy bar that Cale eats. The shaded region measures 1/3 by 1/2. There is one shaded part out of six total parts, so the shaded region equals 1/6 of the entire candy bar. When you multiply the numerators, 1 x 1, you get the number of shaded parts. When you multiply the denominators, 3 x 2, you get the total number of parts. Cale ate 1/6 of the whole candy bar.

2. Jayden cut fabric into rectangles that measured $\frac{2}{3}$ yd. by $\frac{3}{4}$ yd. What is the area of each rectangle in square yards?

    You want to find the area of a rectangle that measures 2/3 yd. by 3/4 yd. The square represents one square yard. The shaded region represents the amount of fabric that Jayden cut. The shaded region is equal to 6/12 of the whole square yard of fabric. When you multiply the numerators, 2 x 3, you get the number of shaded parts. When you multiply the denominators, 3 x 4, you get the total number of parts. The area of the rectangle that Jayden cut out is 6/12, or 1/2 sq. yd.

    1 yard

    1 yard

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3. Our jar of coins is $\frac{2}{3}$ full. My sister knocks the jar over and spills $\frac{3}{4}$ of the coins in the jar onto the floor. How full is our jar of coins now?

The square represents the jar. The jar is 2/3 full, which is eight parts of the square. She spills 3/4 of the 8 parts, so 1/4 of the 8 parts, or two parts, remain in the jar. You want to find 1/4 of 2/3 of the jar because you want to know the amount of coins left in the jar. The shaded region measures 1/4 by 2/3 and represents the amount of coins left in the jar. There are two shaded parts out of 12 total parts, so the shaded region equals 2/12 of the jar. When you multiply the numerators, 1 x 2, you get the number of shaded parts. When you multiply the denominators, 3 x 4, you get the total number of parts. The jar is now 2/12, or 1/6 full.

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