

FRACTIONS

- 2004B 14. A bag initially contains red marbles and blue marbles only, with more blue than red. Red marbles are added to the bag until only $\frac{1}{3}$ of the marbles in the bag are blue. Then yellow marbles are added to the bag until only $\frac{1}{5}$ of the marbles in the bag are blue. Finally, the number of blue marbles in the bag is doubled. What fraction of the marbles now in the bag are blue?
- (A) $\frac{1}{5}$ (B) $\frac{1}{4}$ (C) $\frac{1}{3}$ (D) $\frac{2}{5}$ (E) $\frac{1}{2}$

- 2009B 15. When a bucket is two-thirds full of water, the bucket and water weigh a kilograms. When the bucket is one-half full of water the total weight is b kilograms. In terms of a and b , what is the total weight in kilograms when the bucket is full of water?

(A) $\frac{2}{3}a + \frac{1}{3}b$ (B) $\frac{3}{2}a - \frac{1}{2}b$ (C) $\frac{3}{2}a + b$
(D) $\frac{3}{2}a + 2b$ (E) $3a - 2b$