44. A rectangular flat-screen computer monitor has a diagonal that measures 20 inches. The ratio of the length of the screen to the width of the screen is 4 to 3. What is the perimeter of the screen, in inches?

   (A)   48
   (B)   56
   (C)   64
   (D) 192

45. A circular pizza with a 16-inch diameter is cut into 12 equal slices. What is the area, in square inches, of each slice?
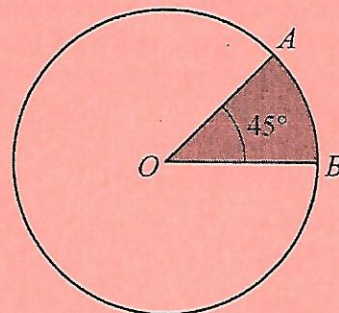
   (A) $\dfrac{16}{3}\pi$

   (B) $\dfrac{8}{3}\pi$

   (C) $\dfrac{4}{3}\pi$

   (D) $\dfrac{2}{3}\pi$

46. A square tablecloth lies flat on top of a circular table whose area is π square feet. If the four corners of the tablecloth just touch the edge of the circular table, what is the area of the tablecloth, in square feet?

   ☐☐☐☐☐ square feet

47. If $f(x) = 4\left(2^x\right)$, what is the value of $f(3)$?

   $f(3) =$ ☐☐☐☐☐

48. The circle shown has center O, and the measure of angle AOB is $45°$. If the area of the shaded sector is 18π, what is the radius of the circle?

   Radius = ☐☐☐☐☐

49. A box contains 12 red tickets and 8 blue tickets. One ticket was chosen at random and not replaced. A second ticket will be chosen at random. If the first ticket chosen was red, what is the probability that the second ticket chosen will be blue?

   (A) $\dfrac{8}{11}$

   (B) $\dfrac{8}{19}$

   (C) $\dfrac{8}{20}$

   (D) $\dfrac{1}{8}$

50. In 2010 the world population was about 6,800,000,000 and the population of the United States was about 310,000,000. Approximately what percent of the world population was the population of the United States?

   (A)   2.2%
   (B)   4.6%
   (C)   21.9%
   (D)   45.6%