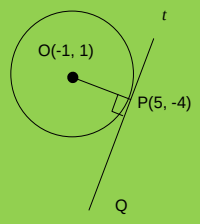
Which expression is equivalent to $\frac{42a}{k} + 42ak$, where k>0? A) $\frac{84a}{k}$ B) $\frac{84a^2}{k}$ C) $\frac{42a(k+1)}{k}$ D) $\frac{42a(k^2+1)}{k}$	D $(42a)\left(\frac{1}{k} + k\right)$ $= (42a)\left(\frac{1+k^2}{k}\right)$
Which quadratic equation has no real solutions? A) $x^2 + 14x - 49 = 0$ B) $x^2 - 14x + 49 = 0$ C) $5x^2 - 14x - 49 = 0$ D) $5x^2 - 14x + 49 = 0$	D $ax^2 + bx + c = 0$ has non-real solutions when $\delta = b^2 - 4ac < 0$ (δ means discriminant.)
$P(t) = 260(1.04)^{\left(\frac{6}{4}\right)t}$ The function P models the population, in thousands, of a certain city t years after 2003. According to the model, the population is predicted to increase by 4% every n months. What is the value of n? A) 8 B) 12 C) 18 D) 72	A $\frac{6}{4}t = 1$ $t = \frac{2}{3}\ yr = 8\ mon$
A circle in the xy-plane has its center at (−1, 1). Line t is tangent to this circle at the point (5, −4). Which of the following points also lies on line t ? A) $(0, \frac{6}{5})$ B) (4, 7) C) (10, 2) D) (11, 1)	C OP⊥PQ OP = (6, -5) Q = P + (5s, 6s) = (5 + 5s, -4 + 6s) 

For an electric field passing through a flat surface perpendicular to it, the electric flux of the electric field through the surface is the product of the electric field's strength and the area of the surface. A certain flat surface consists of two adjacent squares, where the side length, in meters, of the larger square is 3 times the side length, in meters, of the smaller square. An electric field with strength 29.00 volts per meter passes uniformly through this surface, which is perpendicular to the electric field. If the total electric flux of the electric field through this surface is 4,640 voltsmeters, what is the electric flux, in voltsmeters, of the electric field through the larger square?	Method I) $4640\times\frac{9}{10}=4176$ Method II) $4640\div29=160$ $(1:3)^2=1:9$ $160\div(1+9)=16$ $16\times9=144$ (area) $144\times29=4176$ (flux)