

1. The projected total annual profits, in dollars, from Nutyme Clothing Company from 2002 to 2004 can be approximated by the model $\sum_{n=0}^2 (13,567n + 294)$, where n is the year and $n = 0$ represents 2002. Use this model to find the company's projected total annual profits, in dollars, for the period 2002 to 2004.

1.

2. Evaluate: $\sum_{k=0}^3 (3\cos k\pi + 1)$

2.

3. During a recent survey, students at Franconia College were asked if they drink coffee in the morning. The results showed that two-thirds of the students drink coffee in the morning and the remainder do not. What is the probability that of six students selected at random, *exactly* two of them drink coffee in the morning? Express your answer as a fraction or as a decimal rounded to *four decimal places*.

3.

4. Two forces acting on a body make an angle of 104° with each other. The magnitude of the first force is 390 pounds. If the resultant makes an angle of 47° with the first force, what is the magnitude of the resultant, to the *nearest tenth of a pound*?

4.