

1. Use linear approximation to estimate  $\sin 43^\circ$ .
2. I've got a turkey in the oven. After an hour the meat thermometer indicates that the temperature of the turkey is  $93^\circ\text{F}$ , and after two hours it indicates  $129^\circ\text{F}$ . Predict the temperature of the turkey after 3.5 hours.
3. The snowball that I threw at my brother's head was a perfect sphere. I measured its radius and found it to be 21 cm, with a possible error in measurement of at most 0.05 cm. Roughly what is the maximum error in using this value of the radius to compute the volume of the sphere?