Problem-Solving Investigation: Reasonable Answers

EXAMPLE Determine a Reasonable Answer

BIRDS The table below shows the wingspans of some North American birds of prey. What is the wingspan of the Peregrine falcon in feet?

Birds of Prey	Wingspan (in.)
Bald Eagle	54
Peregrine Falcon	40
Great Horned Owl	55
Barn Owl	44

UNDERSTAND You know the length in inches. You need to find a reasonable length in ☐.

PLAN 12 inches equals ☐ foot. So, estimate the quotient of 40 and 12 to find a reasonable length.

SOLVE $40 \div 12 \rightarrow$ ☐ $\div$ ☐ or ☐

A reasonable length is ☐.

CHECK Since $40 \div 12$ or $\frac{40}{12} = \frac{10}{3}$ and $\frac{10}{3} = 3\frac{1}{3}$, the answer of ☐ is reasonable.

Check Your Progress **FISH** A sailfish can swim 68 miles per hour. Which is a more reasonable estimate for the number of miles a sailfish could travel in 15 minutes: 17 or 25? Explain your reasoning.