

**3A** Time: 4 minutes

When Isaac opens a book, the product of the page numbers on the open pages is 420. Find the sum of the two page numbers.

**3B** Time: 5 minutes

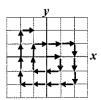
A squirrel buries a total of 80 acorns in N holes. Find the greatest possible value of N, provided:

- (1) No hole is empty, and
- (2) No two holes contain the same number of acorns.
- **3C** Time: 5 minutes

The sum of a proper fraction in lowest terms and its reciprocal equals  $2\frac{4}{15}$ . Find the original proper fraction.

**3D** Time: 7 minutes

The picture shows a "spiral" that begins at the origin **(0,0)** and passes through every lattice point in the plane. Each small arrow is 1 unit in length. Following the "spiral", what is the length of the path from the origin to the point **(5,3)**?



**3E** Time: 7 minutes

How many degrees are in the angle formed by the hands of a clock at 8:24?

