



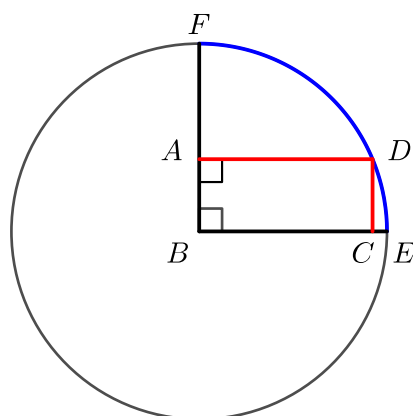
Problem of the Week

Problem C

A Missing Length

A circle with center B and radius 13 cm has three distinct points, F , D and E , on its circumference so that $BF \perp BE$ and D is on the minor arc FE . Point A is on BF so that $DA \perp BF$. The point C is on BE so that $ABCD$ is a rectangle and the distance from C to E is 1 cm.

Determine the distance from A to F .



The *Pythagorean Theorem* states, “In a right triangle, the square of the length of hypotenuse (the side opposite the right angle) equals the sum of the squares of the lengths of the other two sides”.

In the following right triangle, $p^2 = r^2 + q^2$.

