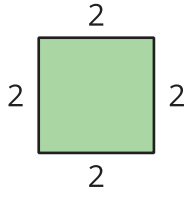
Unit 1 Lesson 7: Construction Techniques 5: Squares

1 Which One Doesn't Belong: Polygons (Warm up)

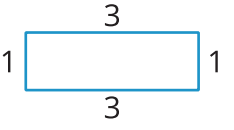
Student Task Statement

Which one doesn't belong?

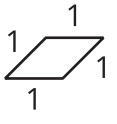
A



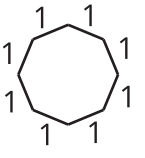
B



C



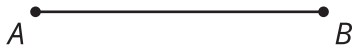
D



2 It's Cool to Be Square

Student Task Statement

Use straightedge and compass moves to construct a square with segment AB as one of the sides.



3 Trying to Circle a Square

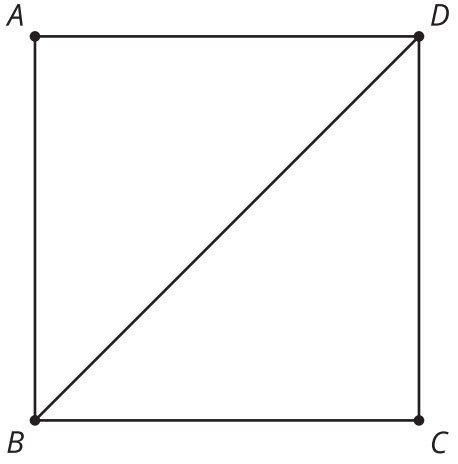
Student Task Statement

1. Here is square $ABCD$ with diagonal BD drawn:
   a. Construct a circle centered at A with radius AD.

   b. Construct a circle centered at C with radius CD.

   c. Draw the diagonal AC and write a conjecture about the relationship between the diagonals BD and AC.

   d. Label the intersection of the diagonals as point E and construct a circle centered at E with radius EB. How are the diagonals related to this circle?



2. Use your conjecture and straightedge and compass moves to construct a square inscribed in a circle.