

31 Jeffrey wrote this number pattern on the chalkboard.

3, 5, 7, 9, ...

Part A

What would be the 5th number in this pattern?

Answer: _____

Part B

What would be the 100th number in this pattern?

Answer: _____

Explain how you found the 100th number in the pattern.

Part C

Write an expression that would give the n th number in the pattern.

Expression: _____

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Use your ruler and protractor to help you solve this problem.

Part A

In the space below, draw two line segments, \overline{DE} and \overline{EF} , that form angle DEF measuring 120° . Each line segment should be 2 inches long, and point E should be the vertex of the angle.

Part B

On the diagram you drew above, draw line segment \overline{DF} to make triangle DEF . What are the measures of angle EDF and angle EFD ?

$m\angle EDF =$ _____ degrees

$m\angle EFD =$ _____ degrees

Part C

To the nearest $\frac{1}{2}$ inch, what is the length of \overline{DF} ?

Answer: _____ inches