

Can you spot a pattern?

$$1 \times 8 + 1 =$$

$$12 \times 8 + 2 =$$

$$123 \times 8 + 3 =$$

$$1234 \times 8 + 4 =$$

$$12345 \times 8 + 5 =$$

$$123456 \times 8 + 6 =$$

$$1234567 \times 8 + 7 =$$

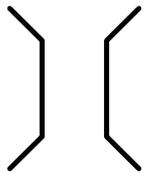
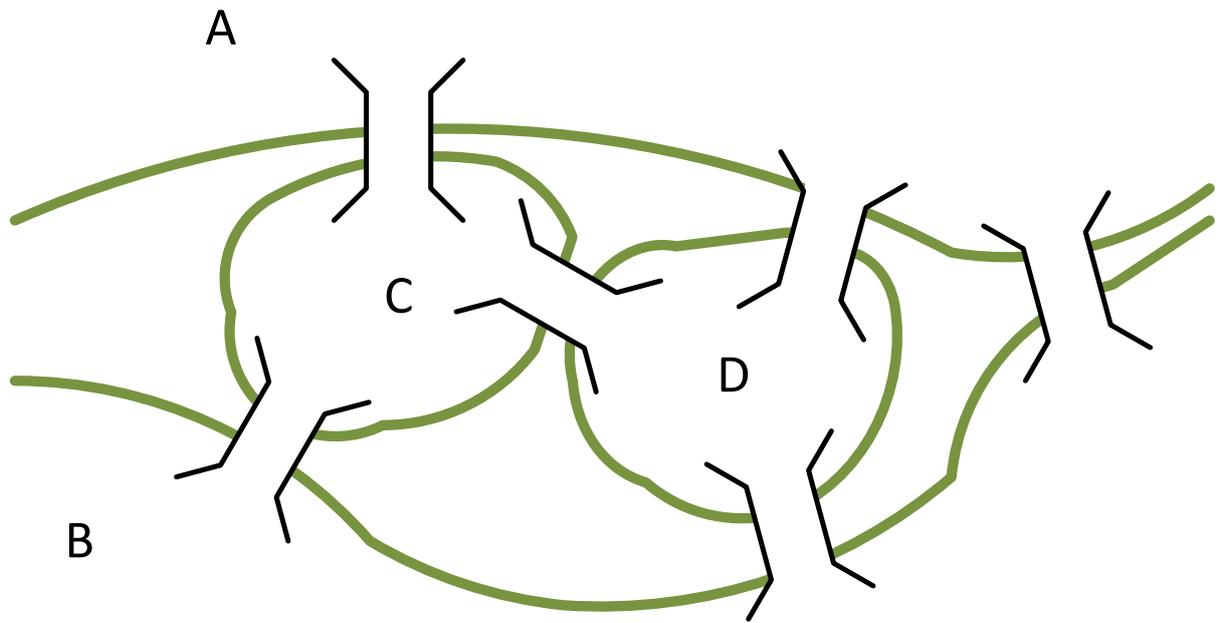
$$12345678 \times 8 + 8 =$$

$$123456789 \times 8 + 9 =$$

Does the pattern continue?

The Königsberg Bridge Problem

Can you find a starting position and a route where you would cross every bridge only once and end up back where you started?

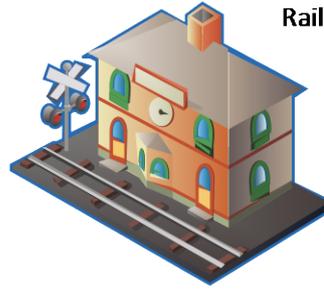


This is a bridge. You can only cross each bridge once.

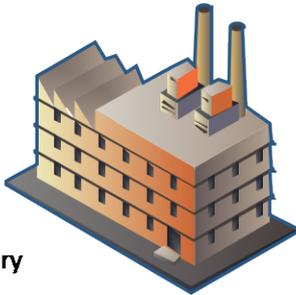
House C



Railway Station



Factory



House B



House A

Shopping Centre



Draw 3 roads from House A to the Factory, Shopping Centre and the Railway Station.

Draw 3 roads from House B to the Factory, Shopping Centre and the Railway Station.

Draw 3 roads from House C to the Factory, Shopping Centre and the Railway Station.

Easy? None of the roads must cross each other.