

Mathematics

Introduction to surds

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Try this

Decide if the following are rational or irrational.

Explain why.

$$\sqrt{9}$$

$$(\sqrt{8})^2$$

$$2 \times \sqrt{9}$$

$$\sqrt{8}$$

$$\sqrt{9} \div \sqrt{16}$$

$$\sqrt{9} \times \sqrt{16}$$

$$9 \times \sqrt{8}$$



Independent task

1) Which of the following is not a surd.

$$\sqrt{9} \quad \sqrt{100} \quad \sqrt{18} \quad \sqrt{81} \quad \sqrt{36} \quad \sqrt{57} \quad \sqrt{5} \quad \sqrt[3]{125} \quad \sqrt[3]{100}$$

2) Estimate the value of the following surds.

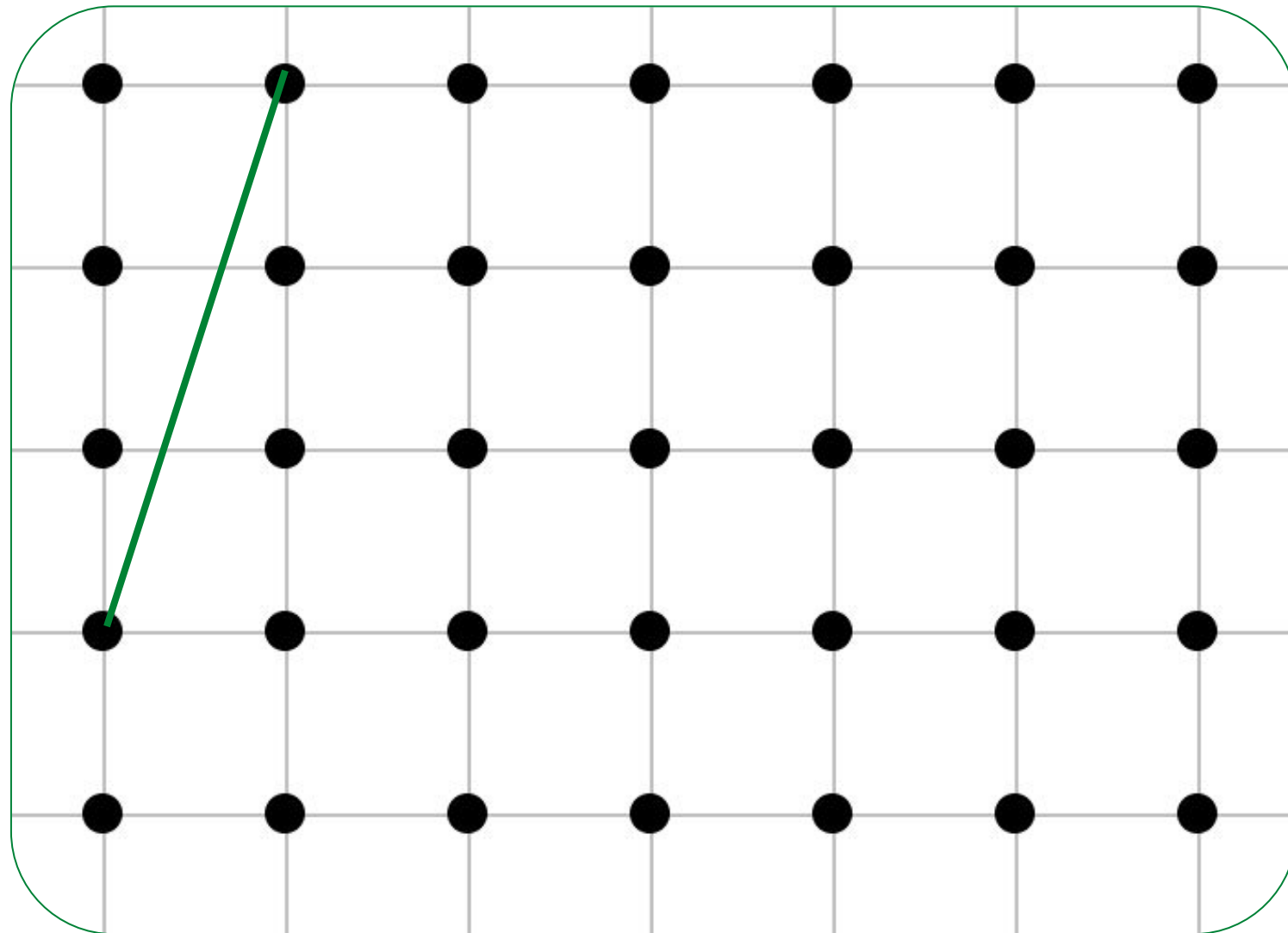
How many ways can you represent this?

$$\sqrt{30} \quad \sqrt{110} \quad \sqrt[3]{100}$$



Explore

How many surd lengths can we draw?



Hint: Think about Pythagoras.



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