

Rational and Irrational Numbers

Video 230 on Corbettmaths

Examples



Click here



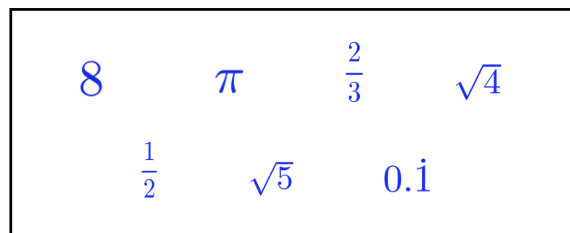
Scan here

Workout

Question 1: Write down 3 rational numbers

Question 2: Write down 3 irrational numbers

Question 3: List any irrational numbers from the box below



Question 4: Write down an irrational number between 4 and 6.

Question 5: Write down an irrational number between 3 and 4.

Question 6: Write down an irrational number between 6 and 7.

Question 7: \sqrt{y} is a rational number between $\sqrt{33}$ and $\sqrt{50}$

Find a value for y.

Question 8: \sqrt{z} is a rational number between $\sqrt{125}$ and $\sqrt{150}$

Find a value for z.

Question 9: $\sqrt[3]{a}$ is a rational number between $\sqrt[3]{100}$ and $\sqrt[3]{200}$

Find a value of a.

Rational and Irrational Numbers

Video 230 on Corbettmaths

Apply

Question 1: Hannah says “**all integers are rational.**”
Is Hannah correct?

Question 2: Kate says “**0.3333... is irrational because it is a recurring decimal.**”
Is Kate correct?

Question 3: Does this equation have rational or irrational solutions?

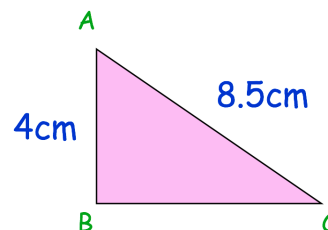
$$\frac{2}{3}x^2 = 40$$

Question 4: The equation below can have rational or irrational solutions.

$$5x^2 = k$$

- (a) Write down a value for k which gives rational solutions.
(b) Write down a value for k which gives irrational solutions.

Question 5: ABC is a right angled triangle.
Is the length BC rational or irrational?



Question 6: Show $(7 - \sqrt{2})(7 + \sqrt{2})$ is rational

Question 7: Find two surds that when multiplied together give a rational answer.

Question 8: Show $\frac{2\sqrt{27}}{5\sqrt{3}}$ is rational

Answers

