Year 8 Integers, Powers and Roots – Challenge

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Year 8 · Maths · Integers, Powers and Roots · Level 3 Challenge · 8 questions

Name _____ **Date** _____

A. Think like a mathematician

1. Jade says the square of any number is positive. Is Jade right? Explain.

Answer _____

2. Chen says the cube of a negative number is always negative. Is Chen right? Explain.

Answer _____

3. Kofi says every integer is a rational number. Is Kofi right? Explain.

Answer _____

4. Eli says $10^0 = 0$. Spot the mistake and give the correct answer.

Answer _____

5. Gus says $(-9)^2 = -81$. Spot the mistake and give the correct answer.

Answer _____

6. Work out $(-2)^2$, $(-2)^3$, $(-2)^4$ and $(-2)^5$. When is $(-2)^n$ positive?

Answer _____

7. A freezer is at −13 °C. A science freezer is 3 times as cold (in °C). What is its temperature? How many degrees colder is it?

Answer _____

8. Here are five numbers: 0.75, 12, −10, 25/5, 0.4. Which of them are integers? (All of them are rational numbers.)

Answer _____