Name: _____   Period: _____   Date: _____

Identifying Irrational Numbers Exit Quiz   Math 8

ANSWERS
Multiple choices

1. **Which of the following numbers is rational?**

   a.) $-2.\overline{121212121}$ b.) $-0.256345 \dots \dots \dots$

   c.) $\sqrt{7}$ d.) 2.123212528

2. **Which of the following numbers is irrational?**

   a.) $3\frac{7}{13}$ b.) $4.2346745 \dots \dots$

   c.) $\sqrt{529}$ d.) $\frac{5}{125}$

3. **Which of the following numbers is a terminating decimal?**

   a.) $\frac{6}{16}$ b.) $\frac{12}{13}$

   c.) $2.\overline{21}$ d.) $0.2\overline{3}$

4. **Classify each number below as either rational or irrational.**
   If you believe your number is rational, prove your answer by writing it as a fraction.

Number	Rational/Irrational	Fraction
$0.\overline{23}$	Rational	$\frac{23}{99}$
0.34	Rational	$\frac{17}{50}$
$-4.\overline{3}$	Rational	$-4\frac{1}{3}$
$-\sqrt{42}$	Irrational	/
$0.34129145..$	Irrational	/

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5. **Find the value of each square root and then classify.**

Number	Value	Perfect square	Irrational Number
$\sqrt{64}$	8	✓	
$\sqrt{24}$	4.8989794..		✓
$\sqrt{81}$	9	✓	
$-\sqrt{\dfrac{5}{6}}$	−0.912870		✓
$\sqrt{50,625}$	225	✓	

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