

April 7th

Name _____

Date _____

Practice by Objective

8.2.2.b

PA, N. 1.3

- 1 Which solution represents the product in scientific notation?

$$(5.34 \times 10^9) \times (1.6 \times 10^7)$$

- A 85.44×10^{16}
- B 8.544×10^{16}
- C 8.544×10^{15}
- D 8.544×10^{63}

- 4 A light-year is 9.45×10^{12} kilometers. One star near Earth is about 4.3 light-years away. About how many kilometers is this?

- A 40.635×10^{14} km
- B 4.0635×10^{14} km
- C 4.0635×10^{13} km
- D 0.40635×10^{15} km

- 2 Which solution represents the quotient in scientific notation?

$$\frac{4.62 \times 10^{10}}{3.3 \times 10^5}$$

- A 1.4×10^2
- B 1.4×10^5
- C 1.4×10^5
- D 0.14×10^2

- 5 Light travels at approximately 1.225×10^6 meters per hour. What is this speed in kilometers per hour?

- A 1.225×10^3 kph
- B 1.225×10^4 kph
- C 1.225×10^5 kph
- D 1.225×10^7 kph

- 3 The diameter of Mercury is 4879 kilometers. What is this number in scientific notation?

- A 4.879×10^{-4}
- B 4.879×10^{-3}
- C 4.879×10^3
- D 4.879×10^4

- 6 Oklahoma's population in 2008 was about 3,640,000 people. What is this number in scientific notation?

- A 3.64×10^{-7}
- B 3.64×10^{-6}
- C 3.64×10^6
- D 3.64×10^7

April 17th

Key

Name _____ Date _____

Practice by Objective
8.2.2.b PA, N. 1.3

The use of technology by means of a calculator or follow order of operations and basic properties to solve.
see April 6th for Notes on Scientific Notation.

1 Which solution represents the product in scientific notation?
 $(5.34 \times 10^9) \times (1.6 \times 10^7)$
 A 85.44×10^{16}
 B 8.544×10^{16}
 C 8.544×10^{15}
 D 8.544×10^{63}
 Handwritten: $5.34 \times 1.6 = 8.544$
 $10^{9+7} = 10^{16}$

4 A light-year is 9.45×10^{12} kilometers. One star near Earth is about 4.3 light-years away. About how many kilometers is this?
 A 40.635×10^{14} km
 B 4.0635×10^{14} km
 C 4.0635×10^{13} km
 D 0.40635×10^{15} km
 Handwritten: $(9.45 \times 10^{12})(4.3)$

2 Which solution represents the quotient in scientific notation?

$$\frac{4.62 \times 10^{10}}{3.3 \times 10^5}$$

 A 1.4×10^2
 B 1.4×10^5
 C 1.4×10^5
 D 0.14×10^2
 Handwritten: divide each
 $1.4 \times 10^{10-5}$
 1.4×10^5

5 Light travels at approximately 1.225×10^6 meters per hour. What is this speed in kilometers per hour?
 A 1.225×10^3 kph
 B 1.225×10^4 kph
 C 1.225×10^5 kph
 D 1.225×10^7 kph
 Handwritten: 1.225×10^3

3 The diameter of Mercury is 4879 kilometers. What is this number in scientific notation?
 A 4.879×10^{-4}
 B 4.879×10^{-3}
 C 4.879×10^3
 D 4.879×10^4

6 Oklahoma's population in 2008 was about 3,640,000 people. What is this number in scientific notation?
 A 3.64×10^{-7}
 B 3.64×10^{-6}
 C 3.64×10^6
 D 3.64×10^7

April 7th

NAME _____

OAS PA.N.1.4

Subskills

91. Identify rational or irrational numbers

1. Which list contains only irrational numbers?

- A. $0.\overline{12}$, $\sqrt{16}$, 6π
- B. 5π , $\sqrt{89}$, $\sqrt{71}$
- C. $\sqrt{63}$, $\frac{5}{7}$, $0.\overline{15}$
- D. $\sqrt{36}$, π , $\frac{18}{17}$

2. Which list contains only rational numbers?

- A. $\frac{5}{18}$, $\sqrt{4}$, $0.\overline{28}$
- B. $\sqrt{46}$, $0.\overline{59}$, π
- C. $\frac{19}{9}$, 6π , $\sqrt{53}$
- D. 4π , $\sqrt{48}$, $\sqrt{64}$

3. Which list contains only rational numbers?

- A. 3π , $\sqrt{28}$, $\sqrt{16}$
- B. $0.\overline{94}$, 2π , $\sqrt{50}$
- C. $\frac{15}{2}$, $\sqrt{36}$, $0.\overline{24}$
- D. $\sqrt{95}$, $\frac{14}{13}$, 5π

4. Which list contains only irrational numbers?

- A. $\sqrt{4}$, $\sqrt{90}$, $\frac{16}{9}$
- B. $\sqrt{18}$, 4π , 2π
- C. $0.\overline{91}$, $\sqrt{49}$, $\sqrt{33}$
- D. 3π , $\frac{13}{11}$, $0.\overline{92}$

5. Which list contains only irrational numbers?

- A. $0.\overline{79}$, $\sqrt{9}$, $\sqrt{5}$
- B. 2π , $\sqrt{42}$, $\sqrt{35}$
- C. 3π , $\frac{12}{17}$, $0.\overline{43}$
- D. $\sqrt{64}$, 4π , $\frac{20}{19}$

April 7th

Khanacademy.org has a good

NAME

Kay

Video "Classifying numbers" OAS PA.N.1.4

Subskills

91. Identify rational or irrational numbers

1. Which list contains only irrational numbers?

A. $0.\overline{12}$, $\sqrt{16}$, 6π

B. 5π , $\sqrt{89}$, $\sqrt{71}$

C. $\sqrt{63}$, $\frac{5}{7}$, $0.\overline{15}$

D. $\sqrt{36}$, π , $\frac{18}{17}$

2. Which list contains only rational numbers?

A. $\frac{5}{18}$, $\sqrt{4}$, $0.\overline{28}$

B. $\sqrt{46}$, $0.\overline{59}$, π

C. $\frac{19}{9}$, 6π , $\sqrt{53}$

D. 4π , $\sqrt{48}$, $\sqrt{64}$

3. Which list contains only rational numbers?

A. 3π , $\sqrt{28}$, $\sqrt{16}$

B. $0.\overline{94}$, 2π , $\sqrt{50}$

C. $\frac{15}{2}$, $\sqrt{36}$, $0.\overline{24}$

D. $\sqrt{95}$, $\frac{14}{13}$, 5π

4. Which list contains only irrational numbers?

A. $\sqrt{4}$, $\sqrt{90}$, $\frac{16}{9}$

B. $\sqrt{18}$, 4π , 2π

C. $0.\overline{91}$, $\sqrt{49}$, $\sqrt{33}$

D. 3π , $\frac{13}{11}$, $0.\overline{92}$

5. Which list contains only irrational numbers?

A. $0.\overline{79}$, $\sqrt{9}$, $\sqrt{5}$

B. 2π , $\sqrt{42}$, $\sqrt{35}$

C. 3π , $\frac{12}{17}$, $0.\overline{43}$

D. $\sqrt{64}$, 4π , $\frac{20}{19}$

Rational #'s can be written as a ratio. Examples are: fractions, decimals (terminating + repeating), Integers & Whole #'s.

Irrational #'s can NOT be written as a ratio. Examples are: π and the square roots of non-perfect squares, like $\sqrt{20}$

Maltz 2017

Remember the Venn Diagram in your notes.