

## ROUND ROBIN 1

### TOSS-UP

1) LIFE SCIENCE *Short Answer* Living organisms are often divided into five Kingdoms. In which of the 5 Kingdoms would *E. coli* be classified?

ANSWER: MONERA

### BONUS

1) LIFE SCIENCE *Short Answer* What is the binomial scientific genus and species name for humans?

ANSWER: HOMO SAPIENS

### TOSS-UP

2) EARTH SCIENCE *Short Answer* The Triassic, Jurassic, and Cretaceous are all periods in what era?

ANSWER: MESOZOIC

### BONUS

2) EARTH SCIENCE *Multiple Choice* Which of the following is the correct term for a large crack in ice:

- W) crevice
- X) chasm
- Y) canyon
- Z) crevasse (PRONOUNCE: crah-VAHSS)

ANSWER: Z) CREVASSE

### TOSS-UP

3) PHYSICAL SCIENCE *Multiple Choice* What is the density given as specific gravity, of a one centimeter cube of a metal that weighs 5 grams:

- W) .5
- X) 5
- Y) 2
- Z) .2

ANSWER: X) 5

### BONUS

3) PHYSICAL SCIENCE *Multiple Choice* Which of the following has the greatest density:

- W) 10 kilogram of pure water
- X) 10 kilogram of aluminum
- Y) 2 kilogram of silver
- Z) 1 kilogram of gold

ANSWER: Z) 1 KILOGRAM OF GOLD

### TOSS-UP

4) MATH Peter bought a soda from a vending machine with a dollar bill. The soda cost 35 cents. What is the smallest number of coins he could receive in change if pennies are not included?

ANSWER: FOUR

### BONUS

4) MATH What is the integer value of  $10^5$  divided by  $10^3$ ?

ANSWER: 100 (DO NOT ACCEPT:  $10^2$ )

### TOSS-UP

5) GENERAL SCIENCE Rickets, which was a common disease in the early twentieth century, is caused by a deficiency in what vitamin:

- W) riboflavin
- X) vitamin B12
- Y) vitamin K
- Z) vitamin D

ANSWER: Z) VITAMIN D

### BONUS

5) GENERAL SCIENCE *Short answer* Exposure to sunlight converts cholesterol found in human skin into what vitamin?

ANSWER: VITAMIN D

### TOSS-UP

6) EARTH SCIENCE Which of the following is present only where benthic organisms reside:

- W) phytoplankton
- X) zooplankton
- Y) diatoms
- Z) deep sea vents

ANSWER: Z) DEEP SEA VENTS

### BONUS

6) EARTH SCIENCE *Short Answer* What is the name of the rapid rise of coastal water that accompanies the arrival of a cyclone?

ANSWER: TIDAL SURGE (ACCEPT: STORM OR BASAL SURGE)

### TOSS-UP

7) PHYSICAL SCIENCE *Multiple Choice* Which of the following metals is attracted to a magnet?

- W) gold
- X) silver
- Y) iron
- Z) aluminum

ANSWER: Y) IRON

### BONUS

7) PHYSICAL SCIENCE *Multiple Choice* The reaction of hydrocarbons found in such things as wood and paper with oxygen to produce carbon dioxide, water and heat is called:

- W) fission
- X) fusion
- Y) endothermic
- Z) combustion

ANSWER: Z) COMBUSTION

### TOSS-UP

8) EARTH SCIENCE *Multiple Choice* Metamorphism transforms limestone into a metamorphic rock called:

- W) quartzite
- X) marble
- Y) hornfel
- Z) granite

ANSWER: X) MARBLE

### BONUS

8) EARTH SCIENCE *Short Answer* What are the icicle-shaped deposits of limestone hanging from the roof of a cave called:

ANSWER: STALACTITES



### TOSS-UP

9) LIFE SCIENCE *Multiple Choice* Which of the following is the region of the body where the stapes bone is located:

- W) ankle
- X) ear
- Y) wrist
- Z) knee

ANSWER: X) EAR

### BONUS

9) LIFE SCIENCE *Short Answer* Sharks belong the class Chondrichthyes because they have a skeleton made of what substance?

ANSWER: CARTILAGE

### TOSS-UP

10) GENERAL SCIENCE *Short Answer* Engineers in the USA often report pressure in PSI's. What does the abbreviation PSI stand for?

ANSWER: POUNDS per SQUARE INCH

### BONUS

10) GENERAL SCIENCE *Multiple Choice* Which planet does not have an element named after it?

- W) Uranus
- X) Mars
- Y) Mercury
- Z) Pluto

ANSWER: X) MARS

### TOSS-UP

11) MATH *Multiple Choice* A parallelogram whose adjacent sides are unequal is a:

- W) deltoid
- X) rectangle
- Y) rhomboid
- Z) monogram

ANSWER: Y) RHOMBOID

### BONUS

11) MATH *Short Answer* Solve the following equation:  $9x - 13 = 14$

ANSWER: 3

### TOSS-UP

12) GENERAL SCIENCE *Short Answer* On the Centigrade temperature scale give the whole number value that is the closest to absolute zero.

ANSWER: MINUS 273

### BONUS

12) GENERAL SCIENCE *Multiple Choice* Which of the following is NOT seen by reflection of sun light:

- W) the moon
- X) Mercury
- Y) Mars
- Z) the north star

ANSWER: Z) THE NORTH STAR

### TOSS-UP

13) PHYSICAL SCIENCE *Multiple Choice* Metals that can be hammered into thin sheets are called:

- W) malleable
- X) ductile
- Y) molten
- Z) pure

ANSWER: W) MALLEABLE

### BONUS

13) PHYSICAL SCIENCE *Short Answer* A white-colored object illuminated by a blue light will appear as what color to the human eye?

ANSWER: BLUE

### TOSS-UP

14) LIFE SCIENCE *Multiple Choice* Which of the following is an intracellular parasite:

- W) malaria
- X) sleeping sickness
- Y) tapeworm
- Z) shigella

ANSWER: W) MALARIA

### BONUS

14) LIFE SCIENCE *Multiple Choice* In mammals, what teeth are evolved primarily to function in gripping and tearing

- W) incisors
- X) canines
- Y) molars
- Z) wisdom

ANSWER: X) CANINES

### TOSS-UP

15) EARTH SCIENCE *Multiple Choice* Each day, most coastal beaches encounter:

- W) one high tide and one low tide
- X) two high tides and one low tide
- Y) two high tides and two low tides
- Z) three high tides and three low tides

ANSWER: Y) TWO HIGH TIDES AND TWO LOW TIDES

### BONUS

15) EARTH SCIENCE *Multiple Choice* Which of the following is a metamorphic rock:

- W) sandstone
- X) granite
- Y) quartz
- Z) marble

ANSWER: Z) MARBLE

### TOSS-UP

16) MATH *Short Answer* What is the cube root of 8?

ANSWER: 2

### BONUS

16) MATH *Short Answer* Solve the following equation:  $3x + 15 = -12$

ANSWER: -9

**TOSS-UP**

17) GENERAL SCIENCE *Short Answer* At its greatest possible brightness, which is the brightest planet in the night sky?

ANSWER: VENUS

**BONUS**

17) GENERAL SCIENCE *Multiple Choice* The largest of the suns planets are:

- W) Venus and Mars
- X) Jupiter and Saturn
- Y) Neptune and Pluto
- Z) Mercury and Uranus

ANSWER: X) JUPITER AND SATURN

**TOSS-UP**

18) EARTH SCIENCE *Multiple choice* By our current estimations, the Earth is approximately how many billions of years old:

- W) 8.4
- X) 6.2
- Y) 4.6
- Z) 2.4

ANSWER: Y) 4.6

**BONUS**

18) EARTH SCIENCE *Multiple Choice* The Earth's mantle is approximately how many miles thick:

- W) 1000
- X) 1200
- Y) 1500
- Z) 1800

ANSWER: Z) 1800



**TOSS-UP**

19) LIFE SCIENCE *Multiple Choice* Which of these organisms is not a kind of worm?

- W) planarian
- X) fluke
- Y) leech
- Z) centipede

ANSWER: Z) CENTIPEDE

**BONUS**

19) LIFE SCIENCE *Short Answer* What is the common specific name for the bond that joins two amino acids to form a growing protein:

ANSWER: PEPTIDE BOND

**TOSS-UP**

20) MATH *Multiple Choice* Four divided by zero is:

- W) 4
- X) undefined
- Y) 0
- Z) infinity

ANSWER: X) UNDEFINED

**BONUS**

20) MATH *Short Answer* Find the value of  $x^2 - y^2$  when  $x = -5$  and  $y = -2$ :

ANSWER: 21

### TOSS-UP

21) PHYSICAL SCIENCE *Short Answer* What is the common scientific term for the ratio of the density of a material to that of water at 4°C

ANSWER: SPECIFIC GRAVITY

### BONUS

21) PHYSICAL SCIENCE *Multiple Choice* Starch is made of what simple sugar?

- W) fructose
- X) mannose
- Y) glucose
- Z) ribose

ANSWER: Y) GLUCOSE

### TOSS-UP

22) EARTH SCIENCE *Short Answer* A large mass of ice, formed on land by the compaction and recrystallization of snow, that is moving downhill or outward under the force of gravity is called:

ANSWER: A GLACIER

### BONUS

22) EARTH SCIENCE *Multiple Choice* A flat-topped plateau bordered on all sides by cliffs is called a:

- W) hillock
- X) butte
- Y) drumlin
- Z) karst

ANSWER: X) BUTTE

### TOSS-UP

23) GENERAL SCIENCE *Short Answer* How many micrograms are in a single milligram?

ANSWER: 1000

### BONUS

23) GENERAL SCIENCE *Multiple Choice* The moon moves around the earth traveling primarily:

- W) east to west
- X) north to south
- Y) west to east
- Z) south to north

ANSWER: Y) WEST TO EAST

### TOSS-UP

24) MATH *Short Answer* If  $a \neq 0$  (read as:  $a$  does not equal 0), what is the multiplicative inverse of  $a$ ?

ANSWER:  $\frac{1}{a}$

### BONUS

24) MATH *Short Answer* What is the square root of 169?

ANSWER: 13

### TOSS-UP

25) EARTH SCIENCE *Multiple choice* The Tropic of Cancer lies at which of the following latitudes:

- W)  $23\frac{1}{2}^{\circ}$  North
- X)  $23\frac{1}{2}^{\circ}$  South
- Y)  $26\frac{1}{2}^{\circ}$  North
- Z)  $26\frac{1}{2}^{\circ}$  South

ANSWER: W)  $23\frac{1}{2}^{\circ}$  NORTH

### BONUS

25) EARTH SCIENCE *Short Answer* Magma that reached the Earth's surface is called what?

ANSWER: LAVA