SINGLE ELIMINATION ROUND 1

- Mulitude Mar by 13 1980 1) MATH Multiple Choice For numbers < 10 (read as: less than or equal to 10), and not including the number 1, how many are prime numbers? Millinin 教教教·婆 然

Y.

PA.

Ph.

1

1

Ph.

Y.

Mylithe star & 3

- X) 4
- Y) 5
- Z) 2

ANSWER: X) 4 (Solution: primes are 2, 3, 5, 7)

BONUS。 标 ^液

motivite # 18

Mylithin the # 13 PR

Maritule of the state of the st

Milling 素素 ·養 「然

Militation that the 18 18

slitute 新春等學

1) MATH *Short Answer* Factor the expression: $x^2 + 3x - 10$

ANSWER: (x + 5)(x - 2)

TOSS-UP

- 2) LIFE SCIENCE Multiple Choice A summary reaction for photosynthesis is:
- W) $CO_2 + O_2 + H_2O$ and light yields carbohydrate + O_2
- X) $CO_2 + H_2O$ and light yields carbohydrate $+ O_2$
- Y) $CO_2 + H_2O$ and light yields carbohydrate + H_2O
- Z) $CO_2 + O_2 + H_2O$ and light yields carbohydrate + H_2O

ANSWER: X) $CO_2 + H_2O$ AND LIGHT YIELDS CARBOHYDRATE + O_2

- 2) LIFE SCIENCE Multiple Choice It is generally believed that most of the oxygen in the air today came from:
 - W) oxidation of carbon molecules containing oxygen Militinite 横横横线 魔
 - X) release of oxygen from volcanic vents
 - Y) photosynthesis
 - Z) forest fires

Mylithin Art At 18 18

ANSWER: Y) PHOTOSYNTHESIS

加加斯林港灣際

制油糖糖养婆際

1. 4. 13 %

stitute 新春·養學

- 3) LIFE SCIENCE Multiple Choice Osmosis is:
 - W) the movement of water through a permeable membrane
- X) the movement of salts through a semi-permeable membrane
- Y) the movement of water through a semi-permeable membrane
- Z) the pressure exerted by water through a semi-permeable membrane

ANSWER: Y) THE MOVEMENT OF WATER THROUGH A SEMI-PERMEABLE **MEMBRANE**

BONUS

- 3) LIFE SCIENCE Multiple Choice Which of the following is most accurate about the pasteurization of milk:
- W) it makes milk taste better
- X) it kills all bacteria by sterilizing the milk
- Y) it lowers the milk's pH
- Z) it reduces the population of bacteria by heating but not boiling the milk

ANSWER: Z) IT REDUCES THE POPULATION OF BACTERIA BY HEATING BUT NOT **BOILING THE MILK**

TOSS-UP

- 4) EARTH SCIENCE Multiple Choice The hard rock under the topsoil in eastern Washington state was laid down over millions of years by volcanic eruptions. This rock is:
- W) limestone
- X) basalt

1

Y.

1

1

Y.

Y) lava

Stitute to the Stitute of the Stitut

Z) granite

ANSWER: X) BASALT

明ititle 新 林 · 婆 學

4) EARTH SCIENCE Short Answer Wind speed is measured by what instrument?

ANSWER: ANEMOMETER

加加州海林海州

清 於 茶 ^辣 水

slithte Mark is fix

Milling the 13 PR

- 5) GENERAL SCIENCE Multiple Choice Doubling a musical note's amplitude:
- W) doubles its frequency
- X) doubles its wavelength
- Y) increases its loudness
- Z) doubles its speed

PA.

1

Y.

1

Y.

ANSWER: Y) INCREASES ITS LOUDNESS

BONUS

5) GENERAL SCIENCE Short Answer Physicists believe there are four fundamental forces of nature. Name any two of them.

ANSWER: GRAVITATIONAL, ELECTROMAGNETIC, STRONG, WEAK (ANY OF THESE FOUR IN ANY ORDER)

TOSS-UP

6) PHYSICAL SCIENCE Short Answer Spanky swings a ball on the end of a string and maintains it in uniform circular motion, what is the most accurate term for the force exerted on the rock through the string?

ANSWER: CENTRIPETAL

BONUS

6) PHYSICAL SCIENCE Multiple Choice The density of an object is a property that depends on: Mikituto Am At '8 PR Militale Mark 13 1982 Maithin Mark 18 18

Millate the the is the

- W) the total weight of object
- X) the total volume of the object
- Y) the liquid the object is suspended in
- Z) none of the above

ANSWER: Z) NONE OF THE ABOVE Activity of the state of the st

油脂糖排資際

Stitute 新春·養 學

加加州海林海州

Militale St. 4. 3 PK

Milita An At 13 18

加加州縣

Militale of the State of the St

stitute ## ** '\$ PR

- *7) PHYSICAL SCIENCE Multiple Choice Amplitude modulation is typically associated with what common form of communication:
- W) television transmission
- X) radio transmission
- Y) short wave transmissions
- Z) laser transmissions

ANSWER: X) RADIO TRANSMISSION

BONUS

Matinta 素素 苯

- 7) PHYSICAL SCIENCE Multiple Choice Which of the following elements does not occur naturally in nature:
- W) uranium
- X) technetium (PRONOUNCED: TECH-net-ee-um)
- Y) boron
- Z) radon

1

W.

1

1

W.

ANSWER: X) TECHNETIUM

- 8) MATH Multiple Choice Which of the following is NOT true:

 W) all natural number:

 - X) all whole numbers are integers
 - Y) all integers are rational numbers
 - Z) all numbers can be both a rational number and an irrational number

ANSWER: Z) ALL NUMBERS CAN BE BOTH A RATIONAL NUMBER AND AN IRRATIONAL NUMBER

BONUS

8) MATH Short Answer Factor the following equation: $x^2 - 6x + 5 = 0$

ANSWER: (x-5)(x-1) = 0

川州海洋溪縣

gritute 素 养婆 序

Milling 新春 · 養 序配

Maritally 教育 养 淺 序

Marithus 新春·養 然

Willing the the control of the contr

gijinh 横珠 · 溪 「彩

mytinte star star is 1980

Maritule Mark 18 182

Willite Man # 15 1980

- 9) EARTH SCIENCE *Multiple Choice* As more fossil fuels are burned to produce energy, the greenhouse effect will continue to cause the temperature of the earth's atmosphere to increase. The substance primarily responsible for the greenhouse effect is:
 - W) ozone

Y.

PA.

1

1

1

1

W.

- X) carbon dioxide
- Y) fluorocarbons
- Z) oxygen

ANSWER: X) CARBON DIOXIDE

BONUS

Implitute 新春 株 婆 PR

Mylitute Ar Ar 18 1980

Maritado Marita Maria Maria

Matitude Art 1/2 1/8

Milling 教教 · 養 · 豫

Maithin Mark 18 18

Maitata Star 14 13 192

9) EARTH SCIENCE *Multiple Choice* Which of the following is sometimes called volcanic glass because of its shiny appearance:

Marithus Mar of 18 180

- W) obsidian
- X) granite
- Y) quartz
- Z) diorite

ANSWER: W) OBSIDIAN

TOSS-UP

- 10) GENERAL SCIENCE Multiple Choice Which of the following is the most common cause of deaths in American women between the ages of 20 and 40?
 - W) AIDS

Stitute And At 's PR

- X) breast cancer
- Y) colon cancer
- Z) heart attacks

ANSWER: X) BREAST CANCER

BONUS

10) GENERAL SCIENCE *Short Answer* Order the following from the SMALLEST unit of distance to the LARGEST: mile, rod, feet, kilometer.

ANSWER: FOOT, ROD, KILOMETER, MILE

加拉拉拉拉

Stitute the the is the

gitute 素 株 沒 序

Imhiling 新光·接際

Marithus Mar # 13 180

Militation # # 18 18

11) PHYSICAL SCIENCE Short Answer For two objects separated by a distance d, if the mass of one of the objects increases by two times, by what factor will the gravitational attraction between them increase?

ANSWER: TWO (ACCEPT 2 TIMES)

BONUS

Milling 新春 华 · 溪 序》

Implitute 素素 · 沒 (%)

11) PHYSICAL SCIENCE Multiple Choice Which of the following elements is found in Period 2 and Group 4A of the Periodic Table:

Marianto Mar of 18 186

- W) sulfur
- Y) nitrogen
- Z) oxygen

ANSWER: X) CARBON

TOSS-UP 🗺 🏋

- 12) GENERAL SCIENCE Multiple Choice Tomorrow's weather forecast report for Venus would be:

1

1

1

1

W.

- Y) hot & humid with clear skies
 Z) overcast & hot

ANSWER: Z) OVERCAST & HOT

BONUS

10) GENERAL SCIENCE Multiple Choice What part of the cotton plant produces what is used to make cotton fabric.

slithte Mark is 182

- W) flowers or seed pods
- X) fibers in the stems
- Y) root hairs
- Z) fibers in the leaves

ANSWER: W) FLOWERS OR SEED PODS

(Solution: The flowers of the cotton plant develop into seed pods and the seeds inside the pods are surrounded with an abundance of fine white hairs which are used to produce long strands or filaments of cotton thread.)

Militale Market 18 18

Millinin 教教教·婆 然

Militate Mi At 18 18

13) MATH Short Answer In standard form, give the product of $(a + b)^2$:

ANSWER: $a^2 + 2a^2 + 2a^$

ANSWER: $a^2 + 2ab + b^2$

Y.

1

PA.

PA.

Ph.

W.

1

1

W.

BONUS

ANSWER: NO SOLUTION (ACCEPT: FALSE, CONTRADICTION, DEFECTIVE EQUATION, ETC.)

TOSS-UP

- 14) LIFE SCIENCE Multiple Choice In bean and corn seeds, the food supply that is used by the seed to germinate and grow is in the:
 - W) cotyledon (PRONOUNCED: KOT-ill-ee-don)
 - X) root tip
 - Y) abcission zone
 - Z) petiole

ANSWER: W) COTYLEDON

BONUS

Militate was by 18 182

1. 4. 13 %

- 14) LIFE SCIENCE Multiple Choice Which of the following infectious diseases cannot be cured with current antibiotics:
 - W) strep throat
 - X) toxic shock syndrome
 - Y) scarlet fever
 - Z) influenza

Maritule Market 18 182

Stitute 新春·養 學

ANSWER: Z) INFLUENZA

Mylitute of the little of the

加州縣縣

Milling the 18 18

withth ## # 18

Malitute Mark 13 180

Mainth the At 18 18

Mylithin the At 13 PR

stitute ## ** '\$ PR

Myithin Make 18 18

Mylithic the 14 18 182

William War by 13 1980

Matinta Ant 18 3

Millinin 教教教·婆 然

Indititite 教育教養學

Ministate Market 18 18

Militalle Market 18 18

Matinta And Act of

Maritule Mar # 18 180

Marith Mar H. 13 PR

- 15) LIFE SCIENCE Multiple Choice The green pigment in plants that captures the energy of sunlight and initiates photosynthesis is called:
 - W) chlorophyll
 - X) anthocyanin
 - Y) carotene

Mylithe star & 3

Y.

1

Y.

Y.

Ph.

1

1

1

W.

Z) xanthophylls

ANSWER: W) CHLOROPHYLL

BONUS

Milititle 游 林·溪 序

- 15) LIFE SCIENCE Multiple Choice Which of the following is an ectoparasite:
- W) tape worm
- X) malaria
- Y) pinworm
- Z) lice

ANSWER: Z) LICE

TOSS-UP

16) EARTH SCIENCE Short Answer What is the name for the fossilized sap of ancient conifer trees that has become brittle and hard, transparent, and yellow to brown in color:

ANSWER: AMBER

BONUS

Militale State 13 PK

William Mark is the

- Ministante 新林塔然 16) EARTH SCIENCE Multiple Choice Which of the following minerals constitute approximately 60% of the Earth's crust:
- W) feldspar
- X) quartz
- Y) calcite

Millite Mark is 180

Z) dolomite

ANSWER: W) FELDSPAR

训帅縣株據縣

Milling 新林·蒙摩

Militate At 18 18

Stitute 新春 养 · 接 序》

- 17) GENERAL SCIENCE Multiple Choice In humans, fertilization of the egg occurs most typically in which of the following?
 - W) ovary
- X) vagina
- Y) uterus
- Z) fallopian tube

ANSWER: Z) FALLOPIAN TUBE

BONUS

- 17) GENERAL SCIENCE Multiple Choice Which of the following is closest to the length of a U.S. five dollar bill?
- W) 6 cm
- X) 12 cm
- Y) 16 cm
- Z) 22 cm

Ph.

1

1

1

ANSWER: Y) 16 CM

TOSS-UP

18) GENERAL SCIENCE Short Answer In a typical four cycle gasoline car engine, what are the most common names for the third stage or cycle of the engine if the first cycle is the intake?

ANSWER: IGNITION (ACCEPT: POWER)

Mylinin Mark 18 182

加州

18) GENERAL SCIENCE Short Answer Order the following from the least used energy source to produce electricity in the U.S.A. to the most: hydroelectricity, oil, coal, nuclear

ANSWER: HYDROELECTRICITY, OIL, NUCLEAR, COAL Marithus Market of Police British the Fig. 188 Dright the start of the

別加州縣

Mylitute of the state of the st

Stitute 新春 养 · 接 序》

Militate Mark to 18 180

Mylithin the # 13 PR

Militate A H W

- *19) PHYSICAL SCIENCE Multiple Choice A manual laborer moves 40 kilograms of flour 5 feet above the ground in 5 seconds. If she does the same task in twice the time it involves a different amount of what:
- W) power
- X) work
- Y) kinetic energy
- Z) potential energy

ANSWER: W) POWER

BONUS

19) PHYSICAL SCIENCE *Short Answer* What is the chemical symbol for the toxic element that causes mental retardation and is medically referred to as Plumbism?

ANSWER: Pb

TOSS-UP

20) EARTH SCIENCE Multiple Choice Which of the following is primarily involved in the movement of a glacier:

Maritule # # 18 18

- W) running water
- X) ambient temperature
- Y) topology

W.

Y.

1

1

W.

Z) gravity

ANSWER: Z) GRAVITY

RONLIS

Militate 新春·養 際

Millute Mark 13 198

Militate Mr. # 18 180

Mylithin the # 13 PR

- 20) EARTH SCIENCE *Multiple choice* The Saffir-Simpson Scale is used to classify intensities of:
- W) hurricanes
- X) tornadoes

Stitute to the State of the Sta

- Y) earthquakes
- Z) volcanic eruptions

ANSWER: W) HURRICANES

加加州海岸港湾

Maritally 教育 养 淺 序

Militate Market 18 180

Mylithin the the continue of t

stitute 素 养婆 PS

- 21) MATH Multiple Choice The equation, x = -4, is which of the following:
 - W) a true statement
 - X) a false statement
 - Y) a conditional equation
- Z) an equivalent equation

ANSWER: Y) A CONDITIONAL EQUATION

BONUS

Marithus Market 18 180 21) MATH Short Answer Express the square root of 75 in its simplest radical form:

ANSWER: $5\sqrt{3}$

TOSS-UP

22) PHYSICAL SCIENCE Short Answer This person established the "one fluid theory" of electricity and performed some of the first investigations into electrical grounding and insulation:

ANSWER: BEN FRANKLIN

BONUS

Millute Man by 13 1980

水水水水

- *22) PHYSICAL SCIENCE Multiple Choice What is always unchanged in any chemical reaction as reactants form products:
- W) the number of molecules
- X) the kind and number of atoms

Myithin Mark 18 18

jillile 教育 林 溪 序彩

- Y) the temperature
- Z) the pressure

Militale And At '8 PR

Assitute to the is the

1

1

Ph.

W.

ANSWER: X) THE KIND AND NUMBER OF ATOMS

Millite Man # 13 PR

stitute 新春·養學

Maritula Mark 18 18

Militale St. # '3 PR

別加州縣

Marithe Mar Nr. 18 PR

Imhiling 教教養學

Militian An At 'S PR

Mylithin the # 13 PR

Maitate of the state of the sta

- 23) EARTH SCIENCE Multiple Choice A continental glacier is found in which of the following locations:
 - W) The Swiss Alps
 - X) The Canadian Rockies
 - Y) Greenland

Y.

1

Y.

1

Ph.

PA.

1

1

W.

Z) The Andes Mountains

ANSWER: Y) GREENLAND

BONUS

23) EARTH SCIENCE *Short Answer* The ability of mica to split into flat planar flakes resembling the leaves of a book is called what?

ANSWER: CLEAVAGE

TOSS-UP

24) MATH Short Answer What is the square root of 1/4?

ANSWER: 1/2

Moritally And At 18 18

Molitule ## # 18 18

BONUS

Militate 赫林·塔塔

Mysitate Art & R.

24) MATH Short Answer Simplify the following algebraic expression: 4x - 3(a - b)

Millinte 新春·養 然

Mikituto Make 18 18

Assitute the the light of the

ANSWER: 4x - 3a + 3bMilling 教教教學

Militate At 18 18

加加加州

Milling 教教教學

Molitule At A 18 18

Maritule Mark 18 18

Imhiling 教教養學

Mythun 新光·後 序

Militate ## # 13 PR

Militate At 14 18

Molitule of the State of the St

Mylithe All W. C.

Inhihih 教教教教教

Milital Mar Art '8 PR

Millinin 教教教·婆然

Mylithe Market 18 18

Maritule of the state of the st

Matinta Ant 18 3

Militin Mar Har 18 18

Implitute 素素 接 %

Inditute 素素 · 養 · 學

Molitule ## # '\$ PR

Militale Art 18 18

Military of the state of the st

Inditute 素素 沒 %

Indititite 新春·養祭

Millinin 教教教學

Milital At A S

Maritule Mark 13 PR

Milital At 3

Mythun 新春 茶 溪 %

- 25) LIFE SCIENCE Multiple Choice Which of the following is the hormone produced by the human body to control blood sugar and when not produced in sufficient amounts is the cause of some forms of diabetes:
 - W) hemoglobin
 - X) pituitary hormone
 - Y) insulin

Milital All State Co.

Y.

1

W.

1

Ph.

1

1

1

W.

Z) testosterone

ANSWER: Y) INSULIN

Military of the state of the st

25) LIFE SCIENCE Multiple Choice The wing of a bird and the arm of a human are considered:

Implitute 素素 ·養 感

Millinin 教教教·蒙然

Myitalle Market 18 18

Millinin 教教教·蒙然

- W) congruent structures
- X) analogous structures
- Y) homologous structures
- Z) vestigial structures

Milital 教教教養學

Milling 素素 養 一家

Marithus Mar # 18 180

Millinin 教教教·蒙然

ANSWER: Y) HOMOLOGOUS STRUCTURES

Inthinte 新春·養 然

Military Market 18 18

Myithin Market 18 18

Slithle Mark '& PR