

BROWNSVILLE ISD

Curriculum Department



Science Streamlined

G08 Science 3-6W Checkpoint 1819

8th Grade

District 6 Weeks 3rd

Regular English Version

Student ID

Student Name

Score(S)

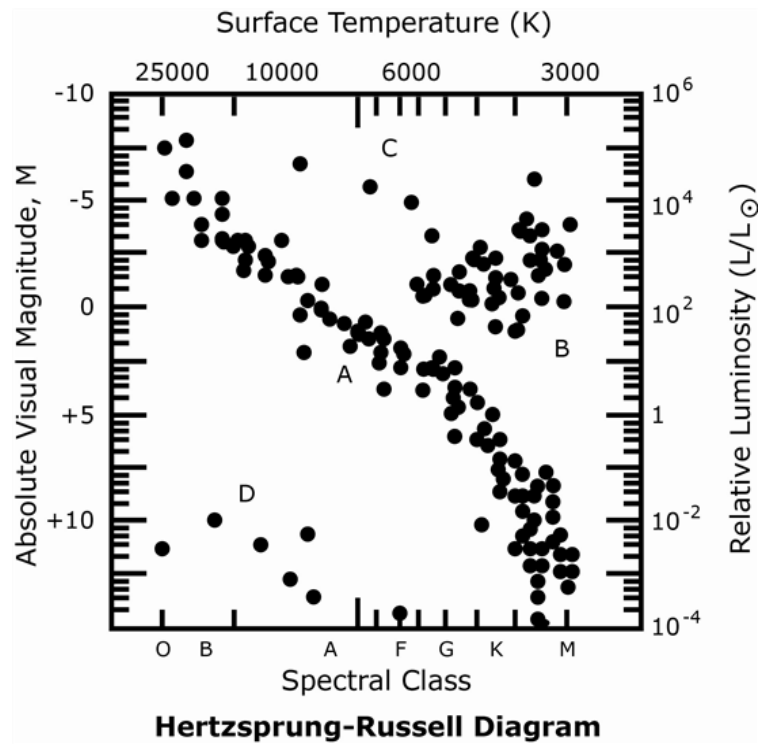
DIRECTIONS

Read each question carefully. Determine the best answer to the question from the four answer choices provided. Then fill in the answer on your answer document.

1 According to the Big Bang theory, how long ago did the universe begin?

- A 13.7 trillion years ago
- B 13.7 million years ago
- C 13.7 billion years ago
- D 13.7 quadrillion years ago





A new star was recently discovered that had a temperature between 10,000-15,000 degrees Kelvin. Which of the following regions would this star be in?

- F** Region A
- G** Region B
- H** Region C
- J** Region D

3 Which of the following is the closest star to Earth?

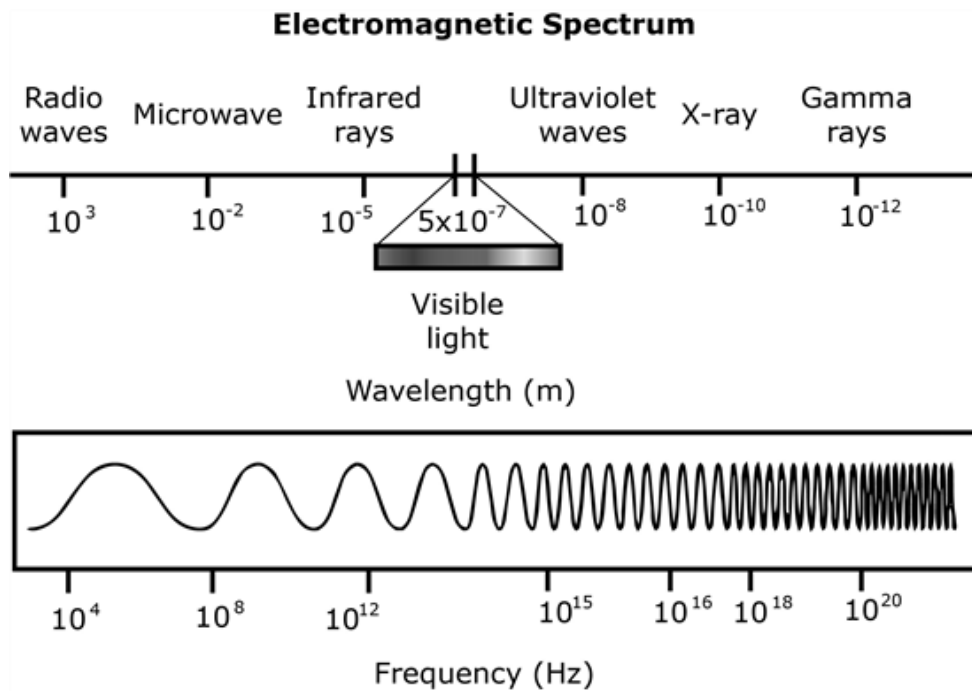
A Alpha Centauri A

B Proxima Centauri

C The sun

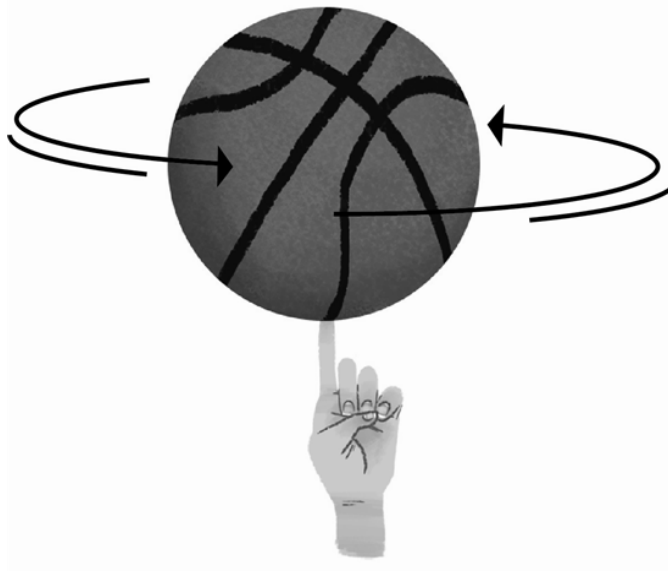
D Tau Ceti

- 4 A team of doctors needs to determine which type of effective treatment is needed for a patient with a pituitary tumor as it would expose the cancer cells to ionizing radiation that damages the cancer cell's DNA. The team calculated that for the optimal result, they need to use a treatment that emits waves with a frequency of 1.23×10^{19} .



The team of doctors will most likely use radiation therapy of —

- F infrared rays
- G x-rays
- H radio waves
- J ultraviolet waves

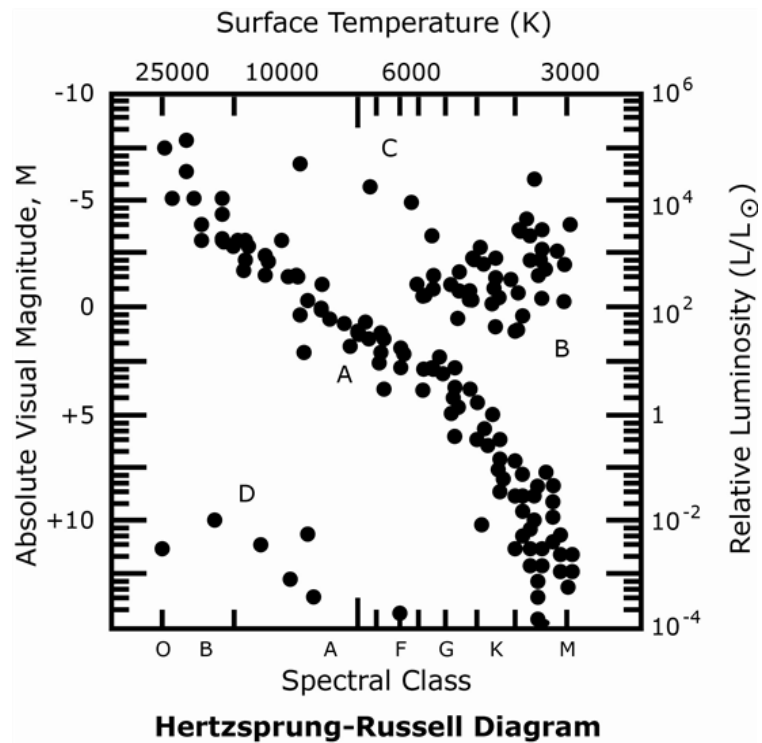


A basketball is spun on a finger to simulate the Earth's daily rotation. How can day and night cycles be simulated on the basketball?

- A** Spin the basketball in different directions
 - B** Add a light source that shines on half of the basketball
 - C** Spin the basketball in a dark room
 - D** Spin two other basketballs and label one the sun and one the moon
-

6 A student is looking at her telescope at night and notices the brightness of the moon. Which of the following telescopes is the student using if she can see color with it?

- F** Radio wave telescope
- G** Light wave telescope
- H** Infrared wave telescope
- J** Gamma wave telescope

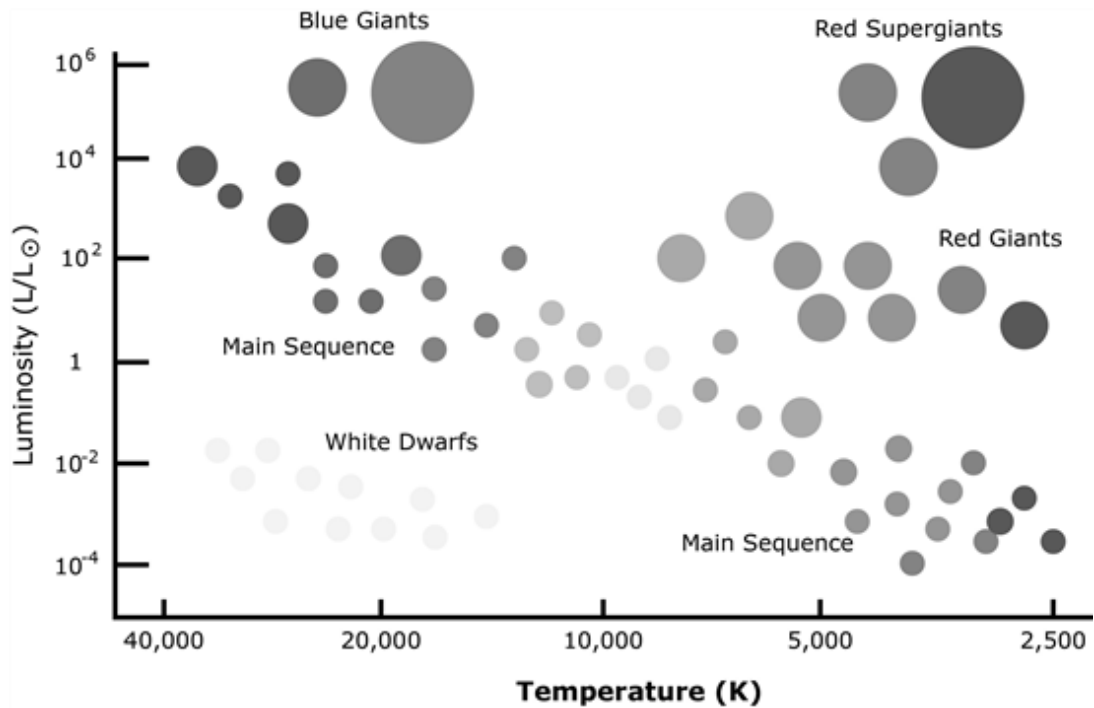


The above Hertzsprung-Russell diagram was used in a science quiz after students in a science class read about the discovery of a new galaxy. Which of the following could be inferred from the above diagram?

- A** Region C consists of red giants.
- B** Region B is hotter than region D.
- C** Region C contains stars larger than region D.
- D** White dwarves exist in region A.

- 8** Which of the following theories is the most widely accepted cosmological explanation of how the universe formed?
- F** The eternal inflation theory
 - G** The oscillating theory
 - H** The steady state theory
 - J** The big-bang theory



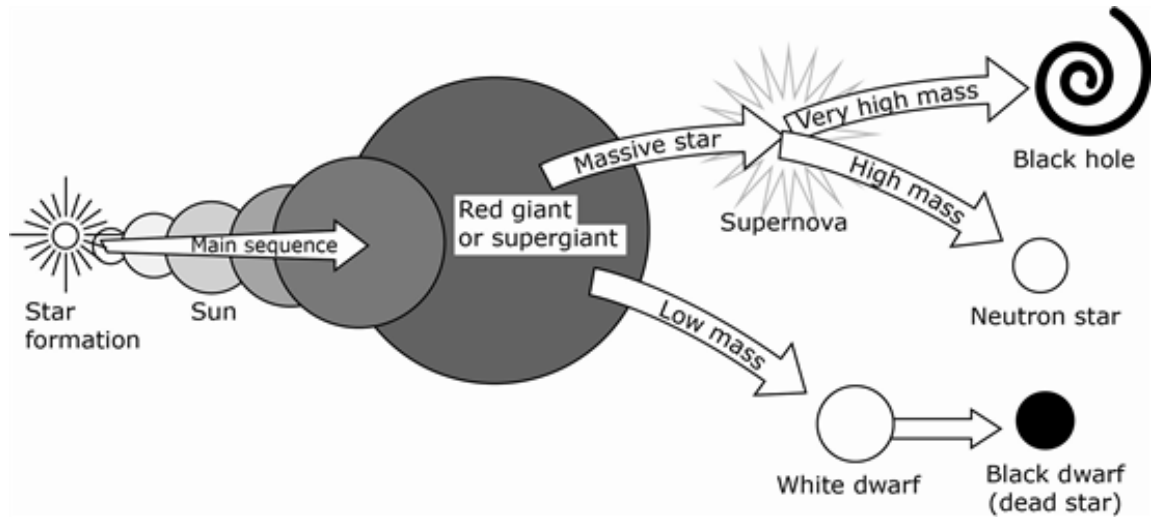


Sirius B is a star located 8.6 light years from Earth. It has a temperature of 25,200 K and a luminosity of 0.03 L . Sirius B is best classified as —

- A** a Main Sequence
- B** a Red Giant
- C** a White Dwarf
- D** a Blue Giant

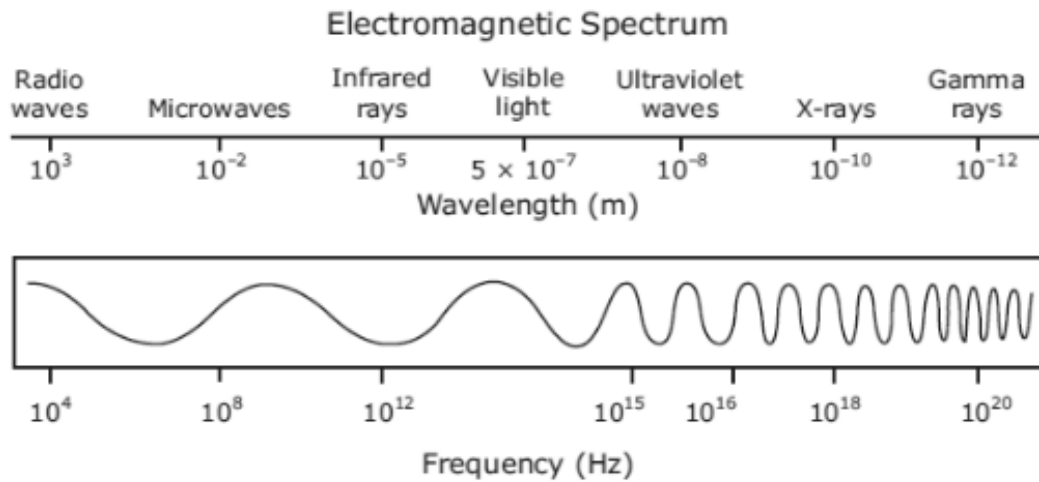
- 10** The Earth gets more energy from the sun than other surrounding stars primarily due to —
- F** the sun's size compared to other stars
 - G** the sun's distance compared from other stars
 - H** the sun's density compared to other stars
 - J** the sun's temperature compared to other stars
-

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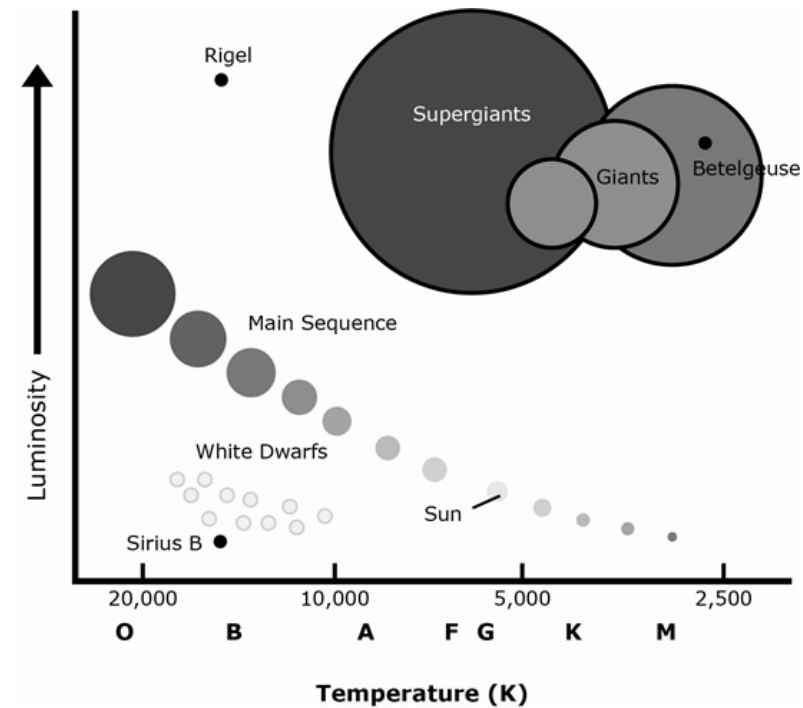
What is the current stage in the life cycle of the sun?

- A** Before the main sequence, known as a protostar
- B** After the main sequence, known as a red giant phase
- C** During the main sequence, known as the middle age
- D** Prior to reaching the supernova stage



An astronomy class went to their local planetarium to look at stars. The telescope that they use has a frequency of 10^6 Hz. The class was most likely using a telescope that detects —

- F** infrared rays
- G** visible light
- H** x-rays
- J** radio waves



A star was recently discovered, and it has the following properties:

- Temperature - 5,000 K
- Spectral Class - G
- Luminosity Low

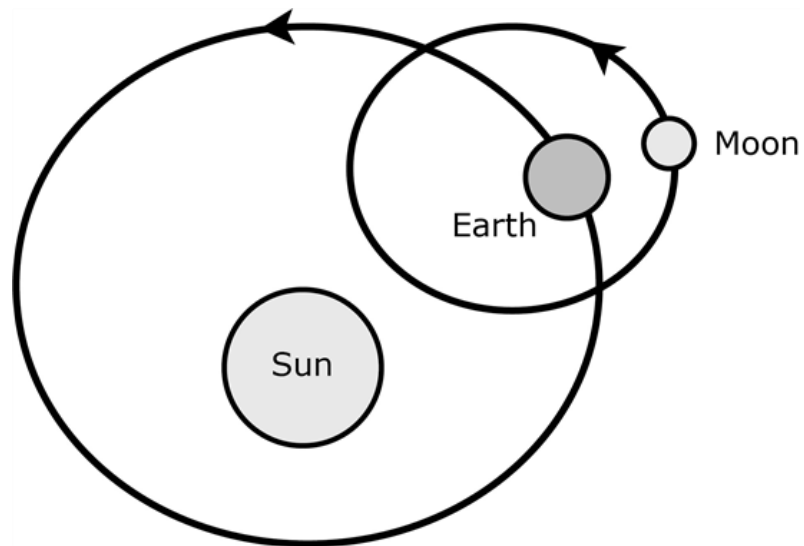
This new star is similar to —

- A** Betelgeuse
- B** The Sun
- C** Rigel
- D** Sirius B

14 Visible light has all of the following colors except —

- F red
- G blue
- H infrared
- J violet

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The Earth's trajectory around the sun is primarily due to —

- A the gravitational influence of the sun on the Earth
- B the chemical composition of the Earth and the sun
- C the gravitational influence of the sun on the moon
- D the frictional forces exerted from other particles on the Earth



Student Name: _____ Student ID: _____

Teacher Name: _____ Score: _____

E G08 Science 3-6W Checkpoint 1819Document ID: **Instructions:** Bubble in your response for each question number that you answered.

1 (A) (B) (C) (D)

2 (F) (G) (H) (J)

3 (A) (B) (C) (D)

4 (F) (G) (H) (J)

5 (A) (B) (C) (D)

6 (F) (G) (H) (J)

7 (A) (B) (C) (D)

8 (F) (G) (H) (J)

9 (A) (B) (C) (D)

10 (F) (G) (H) (J)

11 (A) (B) (C) (D)

12 (F) (G) (H) (J)

13 (A) (B) (C) (D)

14 (F) (G) (H) (J)

15 (A) (B) (C) (D)

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS

PERIODIC TABLE OF THE ELEMENTS

	<div style="display: flex; justify-content: center; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 5px;"> Atomic number — 14 Symbol — Si Atomic mass — 28.085 Name — Silicon </div> </div>																							
1	1 1A																	18 8A						
	1 H 1.008 Hydrogen																	2 He 4.0026 Helium						
2	2 2A																		13 3A	14 4A	15 5A	16 6A	17 7A	
	3 Li 6.94 Lithium	4 Be 9.0122 Beryllium																	5 B 10.81 Boron	6 C 12.011 Carbon	7 N 14.007 Nitrogen	8 O 15.999 Oxygen	9 F 18.998 Fluorine	10 Ne 20.180 Neon
3	3 3B		4 4B		5 5B	6 6B	7 7B	8 8B		10	11 1B	12 2B	13 3A	14 4A	15 5A	16 6A	17 7A	18 8A						
	11 Na 22.990 Sodium	12 Mg 24.305 Magnesium																	13 Al 26.982 Aluminum	14 Si 28.085 Silicon	15 P 30.974 Phosphorus	16 S 32.06 Sulfur	17 Cl 35.45 Chlorine	18 Ar 39.948 Argon
4	19 K 39.098 Potassium	20 Ca 40.078 Calcium	21 Sc 44.956 Scandium	22 Ti 47.867 Titanium	23 V 50.942 Vanadium	24 Cr 51.996 Chromium	25 Mn 54.938 Manganese	26 Fe 55.845 Iron	27 Co 58.933 Cobalt	28 Ni 58.693 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.723 Gallium	32 Ge 72.630 Germanium	33 As 74.922 Arsenic	34 Se 78.971 Selenium	35 Br 79.904 Bromine	36 Kr 83.798 Krypton						
5	37 Rb 85.468 Rubidium	38 Sr 87.62 Strontium	39 Y 88.906 Yttrium	40 Zr 91.224 Zirconium	41 Nb 92.906 Niobium	42 Mo 95.95 Molybdenum	43 Tc Technetium	44 Ru 101.07 Ruthenium	45 Rh 102.91 Rhodium	46 Pd 106.42 Palladium	47 Ag 107.87 Silver	48 Cd 112.41 Cadmium	49 In 114.82 Indium	50 Sn 118.71 Tin	51 Sb 121.76 Antimony	52 Te 127.60 Tellurium	53 I 126.90 Iodine	54 Xe 131.29 Xenon						
6	55 Cs 132.91 Cesium	56 Ba 137.33 Barium	71 Lu 174.97 Lutetium	72 Hf 178.49 Hafnium	73 Ta 180.95 Tantalum	74 W 183.84 Tungsten	75 Re 186.21 Rhenium	76 Os 190.23 Osmium	77 Ir 192.22 Iridium	78 Pt 195.08 Platinum	79 Au 196.97 Gold	80 Hg 200.59 Mercury	81 Tl 204.38 Thallium	82 Pb 207.2 Lead	83 Bi 208.98 Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon						
7	87 Fr Francium	88 Ra Radium	103 Lr Lawrencium	104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110 Ds Darmstadtium	111 Rg Roentgenium	112 Cn Copernicium	113 Nh Nihonium	114 Fl Flerovium	115 Mc Moscovium	116 Lv Livermorium	117 Ts Tennessine	118 Og Oganesson						
Atomic masses are not listed for elements with no stable or common isotopes.																								
Lanthanide Series			57 La 138.91 Lanthanum	58 Ce 140.12 Cerium	59 Pr 140.91 Praseodymium	60 Nd 144.24 Neodymium	61 Pm Promethium	62 Sm 150.36 Samarium	63 Eu 151.96 Europium	64 Gd 157.25 Gadolinium	65 Tb 158.93 Terbium	66 Dy 162.50 Dysprosium	67 Ho 164.93 Holmium	68 Er 167.26 Erbium	69 Tm 168.93 Thulium	70 Yb 173.05 Ytterbium								
Actinide Series			89 Ac Actinium	90 Th 232.04 Thorium	91 Pa 231.04 Protactinium	92 U 238.03 Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium	96 Cm Curium	97 Bk Berkelium	98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium								

Updated 2017