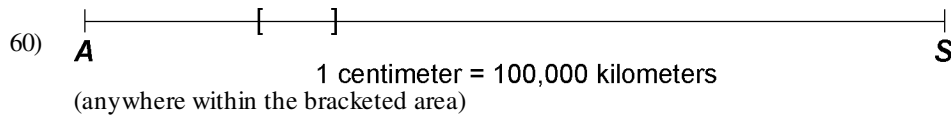


- 1) A 2) B 3) B 4) A 5) D
 6) B 7) A 8) C 9) D 10) C
 11) A 12) B 13) B 14) D 15) B
 16) A 17) D 18) D 19) C 20) D
 21) B 22) A 23) C 24) A 25) B
 26) D 27) C 28) B 29) D 30) C
 31) D 32) A 33) C 34) B 35) B
 36) A 37) C 38) A 39) D 40) B
 41) D 42) A 43) C 44) A 45) D
 46) B 47) C 48) D 49) B 50) A
 51) A 52) C 53) C 54) A 55) A
 56) B 57) C 58) B

59) SAMPLE ANSWERS: *Barnard's Star* is moving toward Earth. OR Earth and *Barnard's Star* are moving closer together. OR *Barnard's Star* is moving closer to the Sun.



61) SAMPLE ANSWERS: *Barnard's Star* has a lower surface temperature. OR is less luminous OR *Barnard's Star* is less luminous than the Sun. OR emits energy at a lower rate

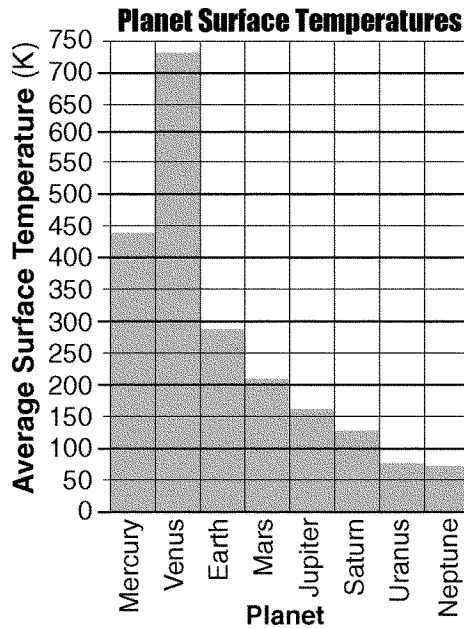
62) universe , *Barnard's Star* , Sun

63) SAMPLE ANSWERS: *Barnard's Star* is a smaller star than the Sun. OR The Sun has more mass.

64) SAMPLE ANSWERS: 4,600 million y OR 4.6 billion y OR 4,600,000,000 y

65) SAMPLE ANSWERS: Diameter: smaller OR Density: greater

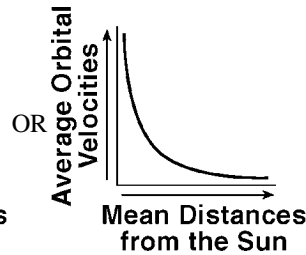
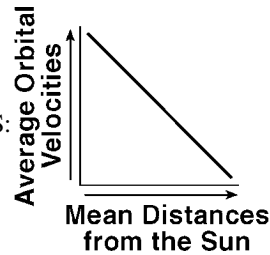
66) Saturn OR Uranus OR Neptune



67)

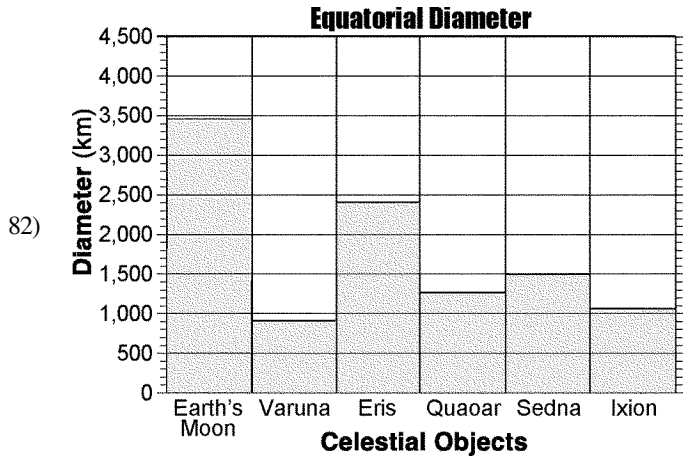
- 68) SAMPLE ANSWERS: Carbon dioxide traps heat in the atmosphere. OR Carbon dioxide absorbs infrared and reradiates it back to Venus. OR Carbon dioxide is a greenhouse gas.

69) SAMPLE ANSWERS:

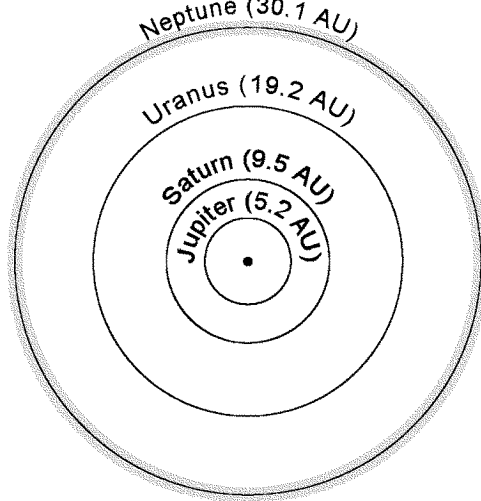


- 70) SAMPLE ANSWERS: Earth's distance to the Sun changes in a cyclic pattern. OR Gravity is greater when Earth is closer to the Sun. OR Earth moves slower when it is farther from the Sun. OR Earth has an elliptical/slightly eccentric orbit.
- 71) Color: yellow AND Luminosity: 1
- 72) SAMPLE ANSWERS: gravitational attraction OR gravity OR pull of the Moon/Sun
- 73) 6 h to 6.25 h
- 74) W: high tide; X: low tide; Y: high tide; Z: low tide
- 75) SAMPLE ANSWERS: weathering and/or erosion OR rock abrasion OR transport by running water OR wave action
- 76) 3.0 to 3.2 times farther
- 77) Neptune
- 78) SAMPLE ANSWERS: The comet orbits the Sun. OR The comet doesn't orbit Earth.
- 79) SAMPLE ANSWERS: The comet moves farther from the Sun than Earth's greatest distance from the Sun. OR During most of its orbit the comet is moving slower than Earth. OR The comet's average distance from the Sun is greater. OR The comet has a larger orbit.
- 80) iron meteorite(s) OR iron
- 81) SAMPLE ANSWERS: Weathering and erosion on Earth's surface have erased many craters. OR Most meteors

are very small and burn up in Earth's atmosphere. OR Most of Earth's surface is ocean, where sediments cover impact craters. OR Crustal plate movement has destroyed the evidence.



83) center of the X should be drawn anywhere on the orbit of Neptune +1-2 mm



84) SAMPLE ANSWERS: Sedna is the farthest from the Sun at its closest approach. OR Sedna travels the farthest away from the Sun. OR Its average distance from the Sun is greatest.

85) A: Jupiter; B: Saturn; C: Uranus; D: Neptune

86) SAMPLE ANSWERS: the farther from the Sun, the greater the period of revolution OR Planets closer to the Sun take less time to complete an orbit. OR direct relationship

87) 955 mi/h

88) SAMPLE ANSWERS:

