Chapter 7 Review Clickers

The Cosmic Perspective
Seventh Edition

Our Planetary System
Which planets have a rocky, relatively dense composition?

a) Jupiter, Saturn, Earth, and Mars
b) Uranus, Neptune, Earth, and Mars
c) Jupiter, Saturn, Uranus, and Neptune
d) Mercury, Venus, Earth, and Mars
Which planets have a rocky, relatively dense composition?

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b) Uranus, Neptune, Earth, and Mars
c) Jupiter, Saturn, Uranus, and Neptune
d) Mercury, Venus, Earth, and Mars
Most of the solar system's planets

a) are made of rocks and minerals.
b) are made of gas.
c) orbit the Sun in the same direction.
d) rotate in the same direction as they orbit the Sun.
e) C and D
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b) are made of gas.
c) orbit the Sun in the same direction.
d) rotate in the same direction as they orbit the Sun.
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What patterns can be seen comparing the terrestrial planets (Mercury, Venus, Earth, Mars) to the Jovian planets (Jupiter, Saturn, Uranus, Neptune)?

- a) The jovian planets are much more massive.
- b) The terrestrial planets are much more dense.
- c) The terrestrial planets are rocky and the jovian planets are gaseous.
- d) All of the above
- e) A and C.
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a) The Jovian planets are much more massive.
b) The terrestrial planets are much more dense.
c) The terrestrial planets are rocky and the Jovian planets are gaseous.
d) All of the above

e) A and C.
Where do asteroids come from?

a) There are the remains of a planet between Mars and Jupiter that broke up.
b) They are escaped small moons.
c) They are leftover planetesimals from the inner solar system.
d) They are leftover planetesimals from the outer solar system.
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Where do asteroids orbit?

a) between Mars and Jupiter
b) in the same plane as the planets
c) some in the plane of the planets, some at large angles to it
d) between Neptune and Pluto
e) A and C
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e) A and C
How do comets differ from asteroids?

a) They are mostly ices, not rock.
b) Their orbits are usually much farther from the Sun.
c) They are leftover pieces of a smashed planet.
d) all of the above
e) A and B
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e) A and B
According to the scale model of the solar system used in Chapter 1, the Sun is the size of a grapefruit. How far away from Earth is it?

a) about an inch away  
b) about a foot away  
c) about 40 feet away  
d) about a block away  
e) about a mile away
According to the scale model of the solar system used in Chapter 1, the Sun is the size of a grapefruit. How far away from Earth is it?

a) about an inch away
b) about a foot away
c) **about 40 feet away**
d) about a block away
e) about a mile away
According to the scale model of the solar system used in Chapter 1, where does the asteroid belt lie?

a) between Mars and Jupiter, around the National Air and Space Museum

b) between Uranus and Neptune, around the Hirshhorn Museum

c) between Neptune and Pluto, around the Art and Industries Building

d) beyond Neptune, but still within the Mall

e) well beyond the orbits of the planets, and off the scale completely (i.e. in a different state)
According to the scale model of the solar system used in Chapter 1, where does the asteroid belt lie?

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e) well beyond the orbits of the planets, and off the scale completely (i.e. in a different state)
According to the scale model of the solar system used in Chapter 1, where does the Kuiper belt lie?

a) between Mars and Jupiter, around the National Air and Space Museum
b) between Uranus and Neptune, around the Hirshhorn Museum
c) between Neptune and Pluto, around the Art and Industries Building
d) beyond Neptune, but still within the Mall
e) well beyond the orbits of the planets, and off the scale completely (i.e. in a different state)
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c) between Neptune and Pluto, around the Art and Industries Building
d) **beyond Neptune, but still within the Mall**
e) well beyond the orbits of the planets, and off the scale completely (i.e. in a different state)
According to the scale model of the solar system used in Chapter 1, where does the Oort cloud lie?

a) between Mars and Jupiter, around the National Air and Space Museum

b) between Uranus and Neptune, around the Hirshorn Museum

c) between Neptune and Pluto, around the Art and Industries Building

d) beyond Neptune, but still within the Mall

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d) beyond Neptune, but still within the Mall
e) well beyond the orbits of the planets, and off the scale completely (i.e. in a different state)
What is the order in which the 4 types of exploratory spacecraft are likely to be sent to planets?

a) flyby, orbiter, lander, sample return
b) lander, orbiter, flyby, sample return
c) sample return, flyby, lander, orbiter
d) flyby, lander, sample return, orbiter
e) sample return, orbiter, lander, flyby
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b) lander, orbiter, flyby, sample return
c) sample return, flyby, lander, orbiter
d) flyby, lander, sample return, orbiter
e) sample return, orbiter, lander, flyby