

Chapter 9 review sheet

s. Tides are generated by:

tsunamis winds ocean currents
forces caused by a combination of gravity and motion among Earth, Moon, Sun
forces caused by a combination of wind-generated waves, surface ocean currents,
deep ocean currents on Earth

t. the gravitational force is equal to:

Gm_1m_2/r^2 Gm_1/m_2r^2 $G/m_1m_2r^2$ Gm_1m_2/r^2 $1/Gm_1m_2r^2$

u. Because of the previous equation, which would have more pull on earth's tides?
the Moon the Sun Mars it depends on where Earth is in its orbit
it depends on the positions of the Sun and the Moon in their celestial motions

v. during a tide, when the water is moving away from the shore we have:

a neap tide a flood tide a quadrature an ebb tide a spring tide

w. during a neap tide, the Moon is said to be:

in syzygy ebb full new in quadrature

x. Earth's revolution plane is called:

declination orbit ecliptic nadir zenith

y. when Earth is closest to the Sun, it is said to be at:

aphelion apogee nadir perihelion perigee

z. a cotidal line is:

the same as an amphidromic point a crest line of ebbing tides
a crest line of flowing tides the alignment of Earth, Moon and Sun
a line that connects all locations where tides occur simultaneously

aa. a tidal pattern with two high tides and two low tides each lunar day, with approximately
the same height for successive tides, is called:

diurnal semidiurnal mixed uniform regular

ab. An example of a tidal extreme can be found in the:

Gulf of California Chesapeake Bay Puget Sound
Bay of Fundy San Francisco Bay

ac. reversing tidal currents running through restricted coastal passages can create so-called
"vortexes", or rapidly spinning bodies of water. These vortexes are more properly named:

grunions high slack water bodies flood currents whirlpools bad tides