

Tides



1. What percent of the earth's surface is covered by water?
2. What is meant by tides?
3. What celestial bodies affect the tides, and what percent of gravitational pull does each exert?
4. Define the following words:
 - a. Spring tide
 - b. Neap tide
 - c. Mean tide
 - d. Rip tide
 - e. Tidal pool
 - f. Ebb tide
 - g. Flow
5. What is the average time period between tides and what is meant by a tidal day?
6. Not all locations have a standard tidal day. Note some places that vary from the norm and tell what the contributing factors to the variation might be.
7. Where in the world are some of the highest tides found? How high are they?

Reference:

Any encyclopedia.

Life of the Ocean and Life of the Seashore, books from the series Our Living World of Nature, published by McGraw-Hill Pub.

Secrets of the Sea, Reader's Digest Publication.

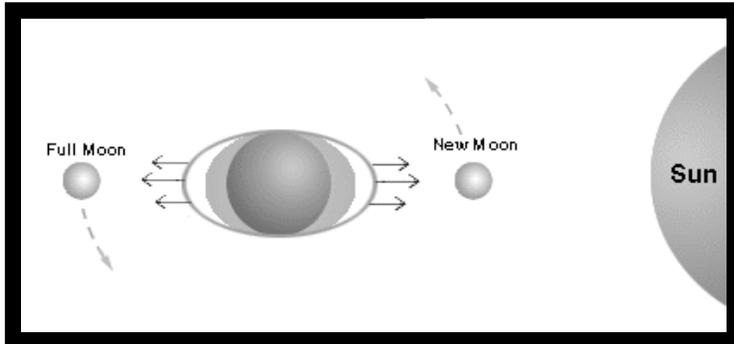
Also, information was taken from Nature, God's Other Book, a Southern Union publication that is no longer in print (but should be.)

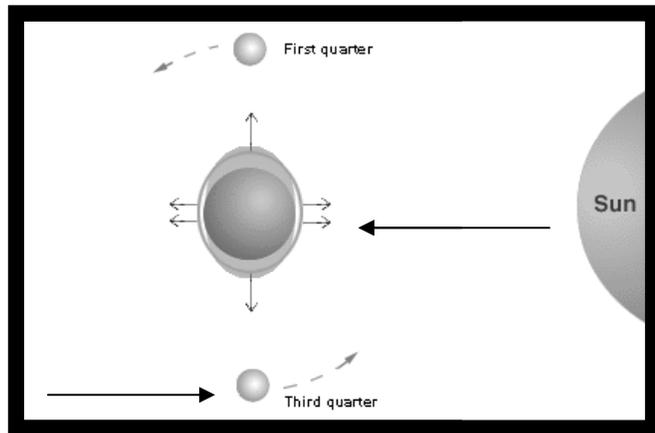
Tides Answers

1. 71% or 3/4ths
2. The periodical rise and fall of all ocean water.
3. Sun - 4/9ths or 2/5ths
Moon - 5/9ths or 3/5ths
4.
 - a. Spring tide - Ocean during a lunar month (28+ days) when the sun and moon are closest in line with each other, the solar and lunar waves coincide, producing maximum pull and result in higher high tides and lower low tides. Fourteen days later, when the moon and sun are opposite each other, a lesser spring tide results.
 - b. Neap tide - When the sun and moon are perpendicular to each other (1st and 3rd quarters), high tides are lower and low tides are higher than normal.
 - c. Mean tide - Average tide level.
 - d. Rip tide - A current of water flowing away from shore, made rough by the meeting of opposing tides or currents.
 - e. Tidal pool - A pool of water left on the shoreline by the ebbing tide.
 - f. Ebb tide - The flowing back of the tide waters to the sea.
 - g. Flow - The rising of the tide waters. Also called the current of water, which may be inflow or outflow.
5. Average time between tides: 6 hours and 12 1/2 minutes. A tidal day (based on lunar time) is 24 hours, 50 minutes, and 28 seconds. Or since tides do vary in certain areas of the world, two high tides and two low tides generally make up a tidal day.
6. Locations: West coast of Florida, Gulf of Mexico, Alaska, parts of the Pacific west coast, etc. Causes: Prevailing wind direction, land configuration, conflicting tides, shallow water.
7. Bay of Fundy - over 50 feet high (there are also other locations).

Tides

Label the pictures with the name of the celestial bodies and the name of the tide that corresponds with their position.



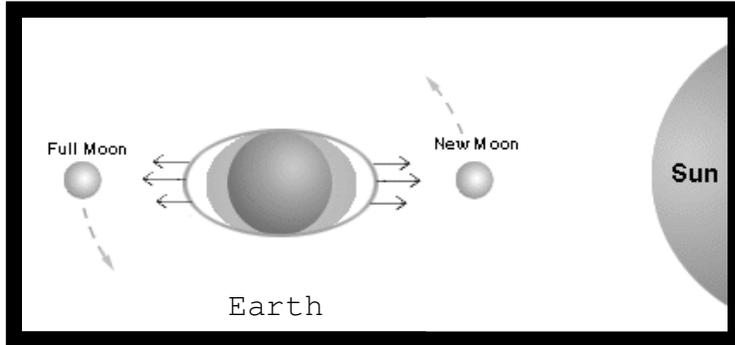


Fill in the blanks:

1. Mean Tide is _____ tide level.
2. _____ tide is a current flowing _____ from shore made rough by the meeting of _____ tides or currents.
3. Ebb tide is the _____ of tides waters to the _____.
4. Flow is the _____ of tide waters. Also called the _____ of _____.
5. The average time between tides is _____ hours. and _____ minute.
6. A tidal day is _____ hours, _____ minutes, and _____ seconds.

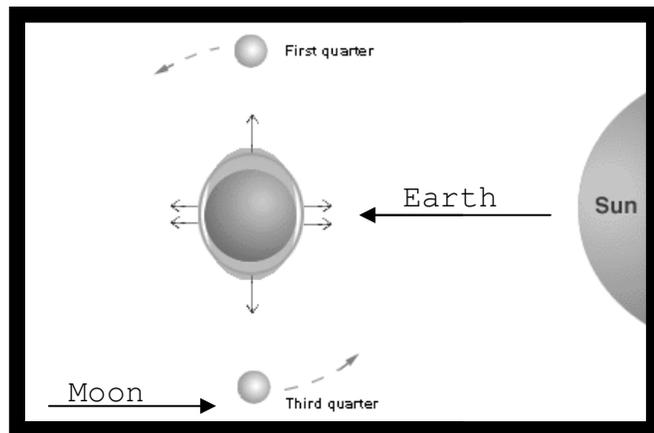
Tides

Label the pictures with the name of the celestial bodies and the name of the tide that corresponds with their position.



Spring Tide

Neap Tide



Fill in the blanks:

1. Mean Tide is average tide level.
2. Rip tide is a current flowing away from shore made rough by the meeting of opposing tides or currents.
3. Ebb tide is the flowing back of tides waters to the sea.
4. Flow is the rising of tide waters. Also called the current of water.
5. The average time between tides is 6 hours and 12 ½ min.
6. A tidal day is 24 hours, 50 minutes, and 28 seconds.

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ted by Iris