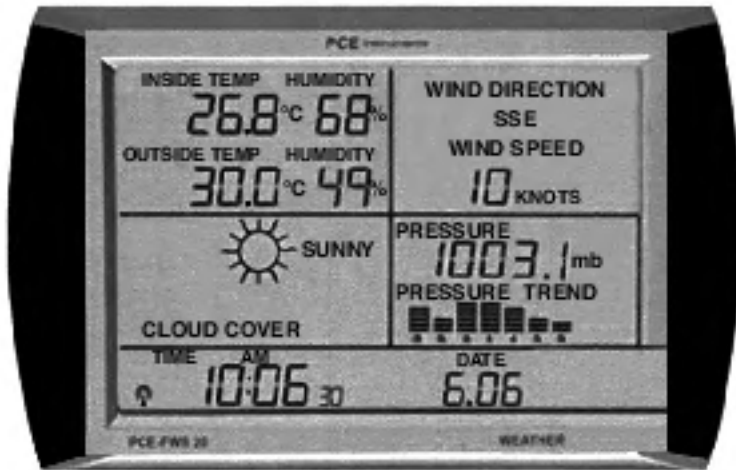


Pressure

Base your answers to questions 1 on the photographs below and on your knowledge of Earth science. One photograph shows a digital device that recorded several weather variables. The second photograph shows two weather instruments, labeled A and B.

Digital Device



Weather Instruments

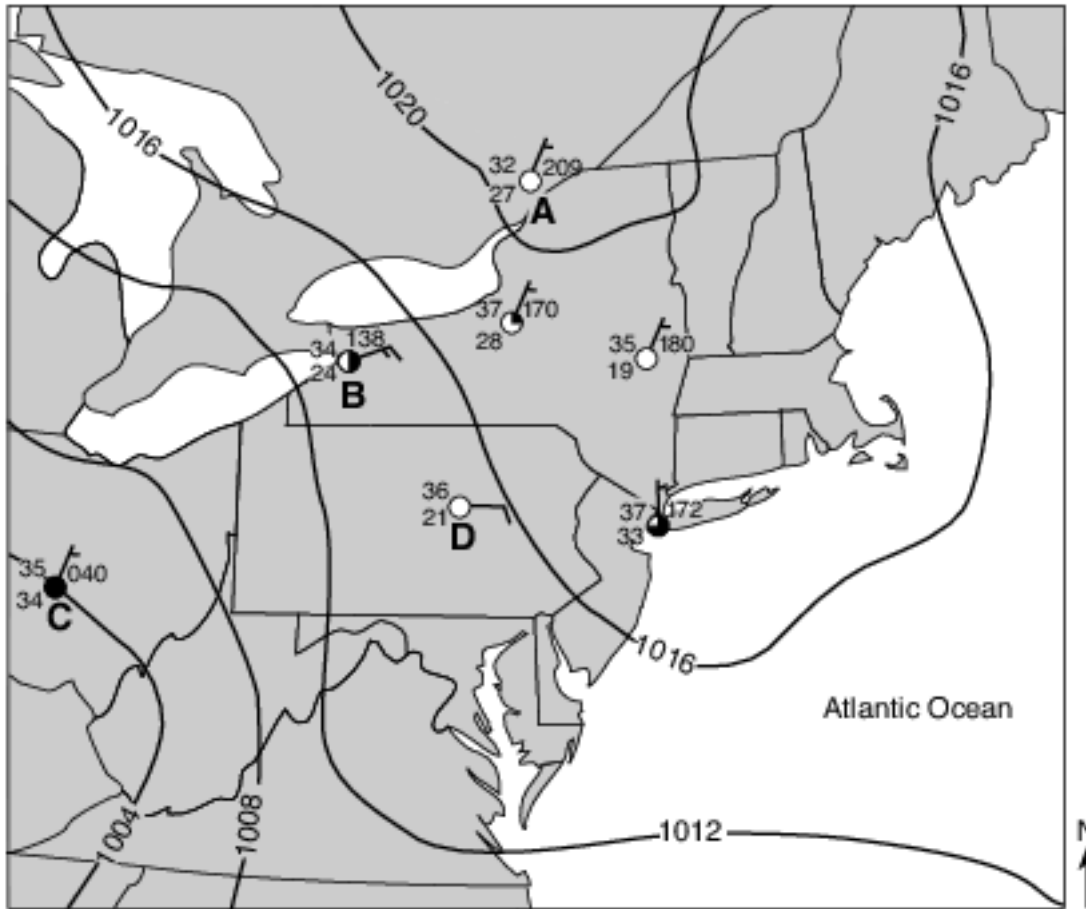


Adapted from: <https://www.pce-instruments.com/us/measuring-instruments/>

1 The barometric pressure was recorded on the digital device in millibars. What is the equivalent air pressure in inches of mercury (Hg)?

- | | |
|--------------------|--------------------|
| (1) 29.59 in of Hg | (3) 29.62 in of Hg |
| (2) 29.60 in of Hg | (4) 29.65 in of Hg |

Base your answers to questions 2 on the weather map below. The map shows isobars and seven weather station models. Four of the weather stations are identified by letters A, B, C, and D.



- 2 What was the probable air pressure, in millibars, at station D?
- | | |
|---------------|---------------|
| (1) 1015.0 mb | (3) 1021.0 mb |
| (2) 1017.0 mb | (4) 1036.0 mb |
- 3 What is the average air pressure exerted by Earth's atmosphere at sea level, expressed in millibars and inches of mercury?
- | | |
|-----------------------------------|-----------------------------------|
| (1) 1013.25 mb and 29.92 in of Hg | (3) 1012.65 mb and 29.91 in of Hg |
| (2) 29.92 mb and 1013.25 in of Hg | (4) 29.91 mb and 1012.65 in of Hg |

Answer Keys

1 3

2 1

3 1