3) Suppose $0 > a > -1$. What must be true about the value of b so that $a > ab$?

A $1 < b$

B $b < -1$

C $1 > b > 0$

D $-1 < b < 0$

Bellwork

4) Four submarines start at sea level, which is 0 meters.

The table shows the change in position per minute, relative to sea level, of four different submarines.

Submarine	Rate of Change
A	-3 ½
B	-4 ¾
C	-6 ½
D	-2 ⅖

$-2\frac{2}{5}$

-2.4

$5\overline{)2.0}$ $\quad 0.4$

$\underline{0}$

2

$\downarrow 0$

Part A

After 7 minutes, what is the position of Submarine D, relative to sea level?

Show your work.

$\begin{array}{r} 2 \\ -2.4 \\ \times \quad 7 \\ \hline -16.8 \end{array}$

Answer: -16.8 meters

Part B

Submarine E also starts at sea level and its position relative to sea level changes at a constant rate per minute. Submarine E is at -30 meters after 10 minutes.

$10\overline{)-30}$ $\quad -3$

Choose *True or False* for each statement.

a. Submarine E changes position faster than Submarine D. ☒ True ☐ False

b. The position of Submarine E will be between the positions of Submarine C and Submarine B. ☐ True ☒ False

c. The position of Submarine B changes twice as fast as Submarine E. ☐ True ☒ False

d. The position of Submarine E after 10 minutes is closer to sea level than position of Submarine A after 10 minutes. ☒ True ☐ False

$\begin{array}{r} 10 \\ -3 \\ \hline -30 \end{array}$

$\begin{array}{r} -3.5 \\ \times 10 \\ \hline 00 \\ -350 \end{array}$