Hello there …

“Session ID” is: 202759

Clicker Buttons

Menu: press and hold to power on/off

Send or “enter” button to submit a selection

Directional buttons: navigate menu options

Clear: erase an entry

“Find Net / No Net”: Need to change the session ID number

“Denied”: Need to change the user ID number

“Session ID” is: 202759
Stop it.

Thinking of our ice-block ... what if there is wind blowing horizontally? (Btw, how good is it to take the wind to be strictly horizontal?)

How strong should the force be, that this wind acts with, so to stop the ice from sliding? The roof is inclined at 30 degrees, and the mass of ice is 0.2 kg.

(Do we really need the mass now, and if yes ... why?)
The wind should act with:

**Force in Newtons (of course)?**
Use three significant figures.

How reasonable are these numbers?
What can you compare the force to?
Example: what object *weighs* that much?
It’s not just about the wind.

What if there is something pushing on this ice – say another chunk? Let’s imagine that we know that it pushes ‘our’ chunk with $F_1$.

What if another force $F_2$ resists the slide, right along the roof – maybe we push with a stick?

*What is the acceleration of the ice?*
Numbers we need?

- Force of the wind is: $F_w = 5\text{N}$
- Force bearing on it from above: $F_1 = 10\ \text{N}$
- Force supporting it from below: $F_2 = 2\ \text{N}$
- The mass of ice is $m = 0.2\ \text{kg}$
- The angle of the roof is 30 degrees.

*What is the magnitude of the acceleration?*

Keep two significant figures.
It won’t go!

We press an object against the wall, making sure that it doesn’t slip! (For some reasons, say that this is a shoe.) We know that we can look up the coefficient of static friction between the surfaces of contact.

What force should be push with?
(What happens if we push with more?)
So how hard could it be?

- That particular shoe has mass of 0.5 kg.
- The coefficient of static friction has been acquired from a general physics handbook: \( \mu_s = 0.5 \) (… units?)

What is the minimum necessary force?
(What kind of a thing does it compare it to?)

Use 2 significant figures.