































← windows →

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|---|--|---|---|---|---|---|--|---|--|
|  Fortna, Teagan |  Deyoung, Brianna |  Bianco, Kelly |  Merritt, Sean |  Bagheri, Biti |  Finch, Benjamin |  Isaac, Guillermo |  Bolton, Emily |  |  |
|  Kolack, Dzian |  Cousart, Connor |  Brady, Stephen |  Chinnici, Erin |  Kopil, Kayli |  Brnich, Jocelyn |  Kendrick, Daniel |  Worthington, Aaron |  Cotton, Kathryn |  Refice, Damian |
|  Elliott, Samantha |  Greco, Joseph |  Willard, Jarred |  Hopkins, Connor |  |  |  Rosiak, Sydney |  Doak, Kenneth |  |  |

BOARD DOOR

Bellwork

A force causes an object to accelerate. Does this force come from inside the object? Defend your answer. no.

- Forces that cause an object to accelerate are external forces. They come from other objects

Gravity: \vec{F}_g

$$\vec{F}_g = m \vec{a}_g$$

mass
of the
object

free fall acceleration
constant, sometimes
written " \vec{g} "

Friction 4 types:

* static: $\vec{F}_s = \mu_s \vec{F}_N$

* sliding:

"kinetic Friction"
 $\vec{F}_k = \mu_k \vec{F}_N$

* rolling friction

* fluid friction

Normal Force \vec{F}_N
"perpendicular"

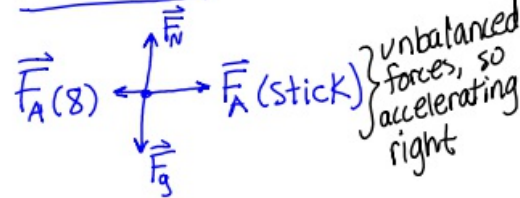
Tension \vec{F}_T OR " \vec{T} "

Applied Force \vec{F}_A

FREE BODY DIAGRAMS



F.B.D.'S



- Object is represented by dot
- All forces acting on object are drawn as arrows pointing away from the dot
- Length of arrow is Strength of force
"magnitude"

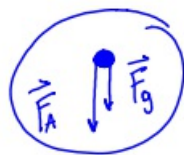
* Forces do not come from inside an object

* Can an object have several force acting on it and be at rest? (yes)

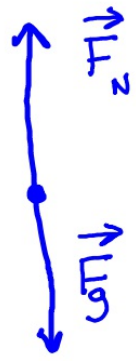
★ When Forces are balanced on an object, it is at rest or moving at a constant velocity.

If forces are unbalanced object is accelerating.

Ex \vec{F}_A & \vec{F}_g both down



1.



2.



3.

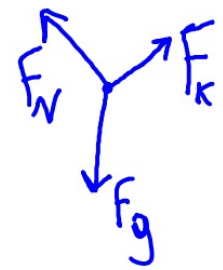


4.



5.

6.



7.

8.