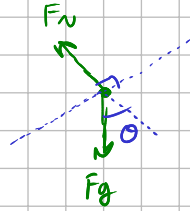
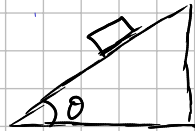


Some challenging free-body diagrams

① box on a ramp

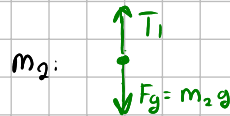
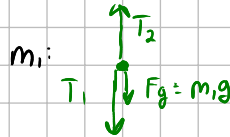


② 2 people playing tug-o-war

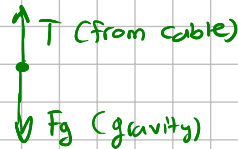


these tensions always have the same magnitude (equal & opposite forces)

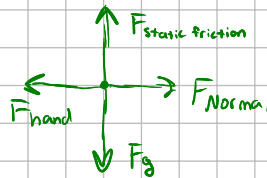
③ 2 objects suspended



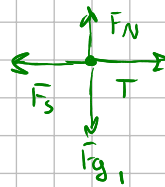
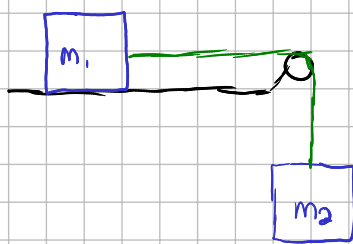
④ elevator



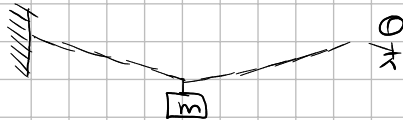
⑤ Pressing a book against a wall



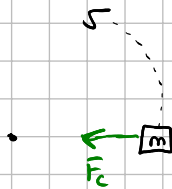
⑥ Mass - Pulley system



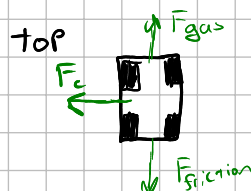
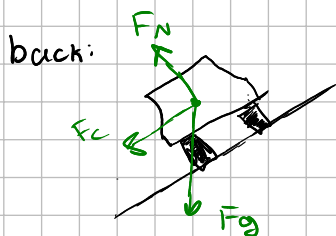
⑦ mass hanging from a rope



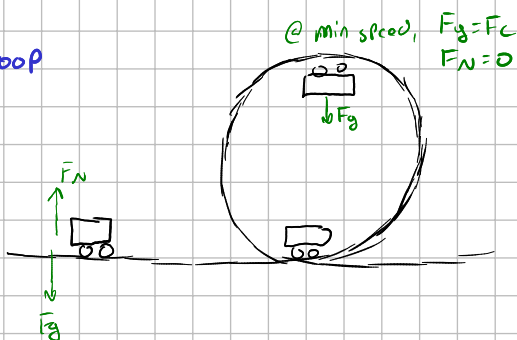
⑧ Uniform Circular motion



⑨ Car on a banked turn



⑩ loop



① Atwood machine

