

Osmosis case study assignment



**ASSIGN
BUSTER**

Keeping in mind your answer to the previous question, what do you believe caused the corn plants to wilt and eventually die? 3. If Michaels mistake had been caught earlier, is there anything that could have been done to prevent the corn from dying? 4. Generally, people water their plants with 100% H₂O?? no solutes added. What sort of environment does this create around the roots of the plant? Part II?? Too Little, Too Late Meanwhile, elsewhere in Haberdasher County, Tom was feeling slightly nervous as he exited the staff lounge and entered the hustle and bustle of County Hospital's ERE to begin his first shift as an RAN.

The first few hours of his shift passed slowly as Tom mostly checked vital signs and listened to patients complain about various aches, ins, coughs, and sniffles. He realized that the attending physician, Dry. Greene, who was rather "old school" in general about how he interacted with nursing staff, wanted to start him out slowly. Tom knew, though, that the paramedics could bring in a trauma patient at any time. After his lunch break, Tom didn't have long to wait before the paramedics burst in through the swinging double-doors of the ambulance bay wheeling in a young man on a gurney.

Edward, a veteran MET, recited the vital signs to Tom and Dry. Greene as they helped push the gurney into the trauma room, "18-year-old male, SSW to the right abdomen, heart rate 92, respiratory rate 22, blood pressure 95/65, no loss of consciousness." A gunshot wound! Tom knew that gunshot wounds were sometimes the most difficult traumas to handle. Once inside the trauma room, Dry. Greene began his initial assessment of the patient while Tom got busy organizing the things he knew would be needed. He attached a pulse-ox monitor to the patient's index finger so Dry.

Greene could keep an eye on the O₂ levels in the patient's blood and he inserted a Foley catheter so the patient's urine output could be monitored. After finishing his initial duties, Tom heard Dry. Greene saying, " It looks like the bullet missed the liver and kidney, but it may have severed an artery. That's probably why his BP is a bit low. Tom, grab a liter of saline and start a fast IV drip we need to increase his blood volume. " Tom grabbed one of the fluid-filled bags from the nearby shelf, attached a 12-gauge IV needle to the plastic tubing, and gently slipped the needle into the patient's intellectual vein.

He then hung the plastic bag on the IV stand and let the fluid quickly start to flow down the tubing and into the patient's vein. The reaction was quick and violent. The patient's heart rate began to skyrocket and Tom heard Dry. Greene shouting, " His O₂ saturation is falling! Pulse is quickening! What is going on with this guy?! " Tom stood frozen in place by the fear. He heard Dry. Greene continuing, " Flailing! We've lost a pulse Tom, get the crash cart, we need to shock this guy to get his heart going again! " Tom broke free from his initial shock and did as Dry. Greene had ordered. He then started CPRM as Dry.

Greene readied the cardiac defibrillator to shock the patient. They continued to alternate between CPRM and defibrillator for almost an hour, but to no avail. As Dry. Greene announced ten time AT tenant , loom Tell a slackening Telling In ten pit AT Nils stomach. He couldn't believe that he had lost his first trauma patient! Then Tom noticed that the fluid in the Foley catheter bag was bright red. " Dry. Greene, there's hemoglobin in the Foley bag," he said. " How could that be? " responded Dry. Greene. Tom began to trace

back over his steps in the trauma, trying to think of anything that could have caused the hemoglobin's.

His mounting fear turned to outright terror as he looked at the now empty bag on the IV stand. Its label didn't read " Saline," but rather " Distilled Water. " He looked at Dry. Greene, his heart quickly sinking, and said, " I think I may have killed the patient. " Questions 1. What problem did the distilled water in the patient's bloodstream create? 2. What heaped to the patient's blood cells as a result? 3. Considering the function of red blood cells, why did the patient's oxygen levels fall? 4. After Tom made his error, is there anything that could have been done to save the patient's life?