**Risk Assessment Questions (20 points total):**

1. The cargo ship, the MOL Comfort (Mitsui OSK Lines), was shipping from Singapore to Saudi Arabia and was one of the few ships that was designed to carry up to 8,000 TEU (Twenty-Foot Equivalent Unit). The first signs of trouble occurred in2013 during a patch of bad weather. The ship split in two with the bow sinking and the crew abandoned ship. The bow sank while carrying 1,600 metric tons of fuel oil 200 nautical miles off the coast of Yemen. One of the chemicals aboard the vessel was chlorodifluoromethane, which is used as a refrigerant. Chlorodifluoromethane is a compressed gas which may explode under pressure, or when heated. If the shipping containers had sunk to the ocean floor the canisters would have exploded but luckily the containers were found washed ashore. The chemical containers were labeled accordingly, but unfortunately some were damaged due to the wreck. The chemical is extremely harmful and acutely toxic if inhaled.

Using your knowledge from the lessons learned and case studies from the oil spill lecture/slides, evaluate the risk or lessons learned associated with this event (12 points). You can look up the MOL Comfort incident if time permits.

1. My apartment complex is currently being painted… The painters do not secure their extension ladders in any way and climb to the very top to reach the third floors. I have witnessed several times them tilting their ladders and grabbing onto the railing for “extra support.” These ladders are also placed in loose soil or uneven rocky ground. I found the picture below online as an example. Now imagine that ladder is fully extended, they are 2-3 stories above ground with painting wands/brushes in one hand. List a few simple things that the contractor could do to reduce the risk of a serious accident. (8 points)

