Air Masses HW

1.   a)   What North American air mass has warm moist air?
              Tropical maritime

b)   Which North American air mass features cold, dry air?

              Arctic or Polar continental

2.   a) Why does a warm front usually bring rain?

              The warm air rises and condenses when it meets a cold air mass.
              b) Why not heavy rain?
              The slope between warm and cold air masses is gentle and clouds are spread out over a large area.

3.   What happens when a cold air mass approaches a warm air mass?

              A cold front results and thunderstorms occur.

4.   What kind of front forms from a combination of cold and warm air fronts?

              Occluded front

5.   What is the difference between a cyclone and an anticyclone?

              A cyclone is a storm that results for a low pressure system where winds blow towards the low pressure centre. An anticyclone has gentler winds which blow out from the center and keep bad weather away.

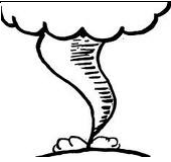6.   Why are the winds of a high pressure system gentler than those of a low pressure system?

              The pressure differences are much smaller.

7.   What causes a low pressure system to form? Warm moist air is buoyant and pushes up *against* the weight of air above.

A high pressure system?

Cool dry air descends and forces in the *same* direction as the weight of air above.

8.   Match the following:

(1) Caused by a strong updraft, thunderstorms and winds form opposite directions._____C_____	\n\nA
(2) cyclone winds move clockwise in this hemisphere_____D_____	\n\nB
(3) anticyclone winds move counterclockwise in this hemisphere_____D_____	\n\nC
(4) A strong low pressure system over the ocean can lead to this_____B_____	\n\nD

Flashback:

9. Fill in the blanks.

a)   The 3rd most common gas in the atmosphere is _____argon or water , depending on humidity conditions_____
b)   The gas in the air needed for proteins is _____nitrogen_____
c)   __Atmospheric pressure_____ is caused by the weight of the air acting on a certain unit of area.
d)   Oxygen is needed because it is used in plant and animal __respiration__
e)   Carbon dioxide is important because **without it** the planet would be too __cold____.