

The original problem is below.

Since Bob says that either Al or Earl has orange and Earl disagrees this means that Al does not have orange. Because Al agrees we know that Earl has orange.

Carl's statement means that Carl and Dave must have the same color.

Al statement means that Carl and Dave must have blue. Otherwise Al will see that Carl and Dave and Earl have red or green or orange.

So far we know Earl = orange, Dave = blue, Carl = blue.

The two remaining must be red and green by Carl's statement but Bob is not red, so Al = red and Bob = green.

A Second Paper Trail

Al, Bob, Carl, Dave, and Earl walk into a room where a colored piece of paper is attached to each one's back without them seeing it.

Al says: I see exactly 2 people with red or green or orange.

Bob and Earl agree.

Carl and Dave disagree.

Bob says: I can see that Al or Earl has orange.

Al, Carl, and Dave agree.

Earl disagrees.

Carl says: I see red, blue, green, and orange.

Dave agrees.

Al, Bob, and Earl disagree.

Dave says: I can see that Bob does not have red.

Al, Carl, and Earl agree.

Bob disagrees.

Earl says: I cannot see the paper on my back but I can see the paper on everyone else's back.

Al, Bob, Carl, and Dave agree.

What color is on Bob's back?