

Question 1

A person who is nearsighted needs to observe a tree which is beyond that person's far point. This can be accomplished by placing a lens in front of the eye. The lens must produce an image of the tree which is upright and closer to the lens than the tree.

Which arrangement will accomplish this?

1. A concave lens placed so that the tree is beyond the focal point of the lens.
2. A concave lens placed so that the tree is between the lens and its focal point.
3. A convex lens placed so that the tree is beyond the focal point of the lens.
4. A convex lens placed so that the tree is between the lens and its focal point.

Question 2

A person who is farsighted needs to observe an ant which is closer than that person's near point. This can be accomplished by placing a lens in front of the eye. The lens must produce an image of the ant which is upright and further from the lens than the ant.

Which arrangement will accomplish this?

1. A concave lens placed so that the ant is beyond the focal point of the lens.
2. A concave lens placed so that the ant is between the lens and its focal point.
3. A convex lens placed so that the ant is beyond the focal point of the lens.
4. A convex lens placed so that the ant is between the lens and its focal point.