

IE-341
Second Semester 1446H (Spring-2025) – 3(2,1,2)
“HUMAN FACTORS ENGINEERING”

Sunday, March 02nd, 2025 (02/09/1446H)

Exercise Set 5: Visual Angle - Acuity

Name:	Student Number: 4	Section: 9 AM
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Answer ALL of the following questions

1. What minimum visual angle can a person with 20/30 acuity resolve?
 - A. 0.5 arc-minute
 - B. 1.0 arc-minute
 - C. 1.5 arc-minute
 - D. 2.0 arc-minute

2. The visual angle subtended by an 8-inch wide light bulb, viewed from 200 feet is ...
 - A. 1.0 arc-minute
 - B. 6.7 arc-minute
 - C. 11.46 arc-minute
 - D. 30 arc-minute

3. A person who can resolve a minimum visual angle of 0.8 arc minutes has a visual acuity of:
 - A. 20/20
 - B. 20/16
 - C. 20/25
 - D. 20/0.8

4. A 1-inch wide target is just identifiable to an observer with 20/20 visual acuity. The target is how far away from the observer's eyes?
 - A. 4.8 feet
 - B. 63.9 feet
 - C. 286.5 feet
 - D. 3438 feet

5. A worker's job is to detect a 0.01 inch space between two wires on an electronic component. One day the worker forgets his glasses (he has 20/50 uncorrected vision). What is the farthest distance away the worker can be and still see the space between the wires?