

# IMAGE TECHNOLOGY I

## Densitometry Study Sheet

1: Assume you observe four different shades of grey. Area "A" reflects 80% of the light, area "B" reflects 60%, area "C" reflects 40% and area "D" reflects 20%. Would these four areas look like they were equally different in tone? In other words would area "D" be the same amount darker compared to area "C" than area "B" is darker than "A?" Why or why not?

---

---

---

2: Assume you observe four different shades of grey. Area "A" reflects 80% of the light, area "B" reflects 40%, area "C" reflects 20% and area "D" reflects 10%. Would these four areas look like they were equally different in tone? In other words would area "D" be the same amount darker compared to area "C" than area "B" is darker than "A?" Why or why not?

---

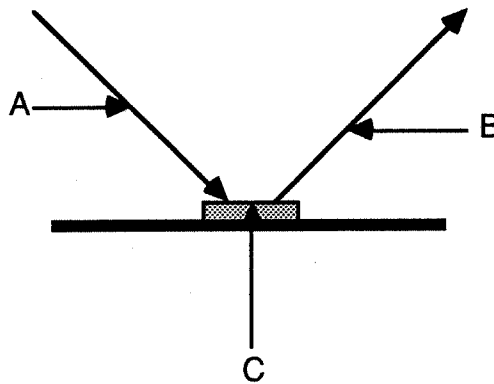
---

---

3: Density refers to how \_\_\_\_\_ an area is.

4: How is density related to reflection? \_\_\_\_\_

5: Identify items "A," "B," and "C."



"A" is \_\_\_\_\_

"B" is \_\_\_\_\_

"C" is \_\_\_\_\_

6: Identify the following log numbers (all are powers of 10!):

0 = \_\_\_\_\_; 1 = \_\_\_\_\_; 2 = \_\_\_\_\_; 3 = \_\_\_\_\_

0.50 must be between \_\_\_\_\_ & \_\_\_\_\_.

1.25 must be between \_\_\_\_\_ & \_\_\_\_\_.

2.65 must be between \_\_\_\_\_ & \_\_\_\_\_.

7: Find DENSITY given incident and reflected light. Place your answers in the spaces provided.

<i>Incident</i>	<i>Reflected</i>	<i>Reflection</i>	<i>Density</i>
80	60		
90	9		
180	50		
1500	75		
22	20		
140	108		
105	19		

8: Find REFLECTION when you know density.

<i>Density</i>	<i>Antilog of Density</i>	<i>Inverse of Antilog</i>	<i>Reflection %</i>
0.29			
1.24			
2.18			
0.85			
1.85			
1.75			
2.02			

9: Derive the Exposure Adjustment Factors when you know density.

<i>Density</i>	<i>Adjust Up</i>	<i>Adjust Down</i>	<i>Reflection %</i>
1.30			
0.63			
0.27			
0.90			
0.85			
1.50			
1.80			

10: In the density number "1.10," the "characteristic" is \_\_\_\_\_.

11: In the density number "2.23," the "mantissa" is \_\_\_\_\_.