Namo	e:		_ Class:		Date:	ID: A
Quiz	Quiz: EM and Light		DO NOT WRITE ON THIS COPY.			
	-	Choice e letter of the choice that b	est completes the	statemer	at or answers the question.	
	1.	What is the wavelength of a. 0.060 m b. 0.10 m	of microwaves of 3	3.0 × 10 <sup>9</sup> c. d.	Hz frequency? 0.050 m 0.20 m	
	2.	What is the frequency of a. $1.0 \times 10^{13}$ Hz b. $3.0 \times 10^{3}$ Hz	an electromagnet	c.	with a wavelength of $1.0 \times 1$ $3.0 \times 10^{13}$ Hz $1.0 \times 10^{3}$ Hz	0 <sup>5</sup> m?
	3.		of an infrared wav	e with a c.	frequency of $4.2 \times 10^{14}$ Hz? $7.1 \times 10^{-7}$ m $1.4 \times 10^{-6}$ m	
	4.	<ul> <li>In a vacuum, electromagnetic radiation of short wavelengths</li> <li>a. travels as fast as radiation of long wavelengths.</li> <li>b. travels slower than radiation of long wavelengths.</li> <li>c. travels faster than radiation of long wavelengths.</li> <li>d. can travel both faster and slower than radiation of long wavelengths.</li> </ul>				
	5.	<ul><li>When red light is compa</li><li>a. both have the same</li><li>b. both have the same</li></ul>	red with violet light frequency.	ht, c.	both travel at the same spe red light travels faster than	
	6.	The relationship between frequency, wavelength, and speed holds for light waves because a. light travels slower in a vacuum than in air. b. all forms of electromagnetic radiation travel at a single speed in a vacuum. c. light travels in straight lines. d. different forms of electromagnetic radiation travel at different speeds.				
	7.		_	e same pi	ace on a piece of white pape white. black.	er, the spot appears to be
	8.	Which of the following is a. yellow b. blue	s NOT an additive	e primary c. d.	color? red green	
	9.	Which of the following is a. yellow b. cyan	s NOT a primary	subtracti c. d.	ve color? magenta blue	
	10.	When the transmission a a. all the light passes t b. most of the light pas	hrough.	ar to the c. d.	plane of polarization for light little of the light passes thr no light passes through.	

## **Bonus:**

11. What occurs when beams of light of three primary colors are combined?