Mirror and Lenses Practice TEST

1. A microscope uses a converging lens with a focal length of 3 cm. A 0.6 cm tall insect is placed 2 cm from the lens. Find the q and hi using both a diagram and equations:

RAY DIAGRAM: **EQUATIONS:**

_ _

q =

hi =

q =

hi =

1. An object 1.5 cm tall is placed 7.0 cm in front of a diverging lens with a focal length of 4 cm. Find the q and hi using both a diagram and equations.

RAY DIAGRAM: **EQUATIONS:**

_ _

q =

hi =

q =

hi =

Why is there a focal point on both sides of a lens? _____

When is magnification negative? _____

When is q negative with mirrors? _____

When is q negative for lenses? _____

What kind of mirror AND lens can make a REAL image? _____

What type of mirror AND lens has a negative focal length? _____

What type of image can be projected? _____

Which type of lens is thicker in the middle? _____

Which type of lens is used to correct nearsightedness? _____

What is the difference between reflection and refraction? _____

What is the frequency of light with a wavelength of 450 nm? _____