**Physics 30 – Lesson 33**

**Wave-Particle Duality**

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9) (c) The double-slit experiment demonstrates that light has both wave and particle characteristics. As a wave, the interference pattern is understood as different light waves

2/ interfering either constructively or destructively depending on the phase difference between the light rays. As a particle, the photons are particle waves that land on the screen in a location that is governed by probability. After a sufficient number of photons have gone through the double slit apparatus, the pattern appears.

10)

a. False. The results of the double-slit experiment apply to light as well.

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b. True. The double-slit experiment applies to any wave phenomenon.