

Here are some examples of copying (or plagiarism) from the same source from a recent class. You may work together, but write up your results separately and please hand in your own work. If in doubt, ask the grader or me. Ask yourself, too: if the grader had a stack of 100 homework sets to grade, how unusually similar would your homework be compared to your study partner, vs. compared to everyone else? If it's easy to tell that you worked together, you should be more careful to write up your results separately.

★ 2.16 I would say that with emission and absorption lines you can detect the chemical make up of everybody in space.

★ 2.23 Yes, when the object & the observer are moving relative to each other then the doppler effect is relevant. see key

★ 2.25 $F \times W = \text{Speed of light}$ $\frac{299792,458 \text{ m/s}}{95 \text{ MHz}} = 3155.71008421$ see key
 Wavelength = $\frac{\text{speed of light}}{\text{frequency}}$

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★ 3.8) It would be better in space because you would not have to worry about weather condition affecting visibility, instead you would always be observing without distortion. see key

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★ 3.9/ It is better to use a medium-sized telescope on a mountain rather than in space because it is less expensive & very large state-of-the-art telescopes cannot be used in space.

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★ 3.15) a) $100 = (D_1 / 0.006 \text{ m})^2$

$\frac{0.5}{1} \quad \sqrt{100} = 10$

$10 = D_1 / 0.006 \text{ m}$

$D_1 = 0.6 \text{ m}$

b) $1,000,000 = (D_1 / 0.006 \text{ m})^2$

$\sqrt{1,000,000} = 1,000$

$1,000 = D_1 / 0.006 \text{ m}$

$D_1 = 6 \text{ units?}$

c) No ~~units?~~

★ 3.15 a) $100 = (D / 0.006 \text{ m})^2$

$\frac{D}{1} \approx 18)$

$\frac{0.5}{1} \quad \sqrt{100} = 10$

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$\sqrt{1,000,000} = 1,000$

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c) No

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