

1) The temperature one hot summer morning in Florida was  $90^{\circ}\text{F}$ . By midnight the temperature had dropped to  $70^{\circ}\text{F}$ . What was the percent decrease in temperature? *Round to the nearest percent.*

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2) While walking, a 156 lb person burns about 5 calories per minute.\* That same person running would burn about 11.25 calories per minute. What is the percent increase in calories burned if a person runs rather than walks?

\*The source has 4.78 cpm; I rounded to 5 cpm to simplify calculations.  
(Source: <http://www.runnersworld.com/weight-loss/running-v-walking-how-many-calories-will-you-burn>)

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3) Say that your phone plan costs \$50 per month. A company wants you to switch to them and promises it will cost you \$15 less per month. What would be your percent decrease in cost per month?

4) A skydiver in the standard “belly-to-earth” position has a maximum speed (terminal velocity) of about 120 mph. If this person shifts to a “head down” position, her speed may reach 180 mph.\* What is her percent increase in speed?

(Source: [http://en.wikipedia.org/wiki/Speed\\_skydiving](http://en.wikipedia.org/wiki/Speed_skydiving))

\*Technically, speed and velocity do have different meanings. Regarding record speed in skydiving, it is much faster than 180 mph, in fact it's over 800 mph!

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5) In 2012 there were 13,600 Respiratory Therapy Technicians. (average salary \$46,700) The projection is for there to be 2,300 more jobs in 2022. What is the percent increase in the number of jobs? *Round to the nearest percent.*

(Source: <http://www.bls.gov/ooh/about/data-for-occupations-not-covered-in-detail.htm#Healthcare%20Occupations>)

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6) A computer costs \$900 new. Two years later its resale value is \$243. What is the percent decrease in value?