

## Education and Advancement Virtual Business Math Quiz

1. A course that costs \$500 will allow you to get a job that pays \$2 more per hour than your current job. How many hours will you need to work at the new job before your investment in education has "paid off"?
  - a. 20
  - b. 100
  - c. 150
  - d. 250

**Step 1:** you paid \$500 for the course and you can make \$2 more an hour

So take \$500 and divide it by \$2  $\frac{\$500}{2}$  = \_\_\_\_\_

This is how many hours you will need to work to "pay off" your course

2. You are told that having a college education increases a person's earnings by 30% over their lifetime. A non-college graduate earns about \$30,000 per year. How much more will you earn with a college education over a 40 year career?
  - a. \$30,000
  - b. \$120,000
  - c. \$240,000
  - d. \$360,000

**Step 1:**

Earning potential with a college education	\$30,000
Earn 30% more (convert 30% to a decimal)	x . _____
Multiply \$30,000 x _____ = increased earning potential	= _____
increased earning potential _____ x 40 year	= _____

3. Your current schedule only lets you take two 1-credit courses every six months. You need 12 credits to get the degree you want. How long will it take you to get the degree?
  - a. 1 year
  - b. 2 years
  - c. 3 years
  - d. 4 years

**Step 1:** your schedule allows you to take 2 "1" credit courses = 2 x 1 = 2 credits every 6 months

How many months in a year \_\_\_\_\_

How many "6 months" are in a year? = \_\_\_\_\_

Multiply the two numbers above to figure how many credits in a year you can earn = \_\_\_\_\_

Divide 12 credits you need by credits in a year you can earn (12/\_\_\_\_) = \_\_\_\_\_ years

4. You have accumulated \$85,000 in student loans that average 5% interest. You graduate next month and will be paying off the loans over 10 years. Which of the following is most likely to be your monthly payment assuming you pay interest and a portion of the principal each month?
- \$37
  - \$900
  - \$117,500
  - \$175,000

	Accumulated Student loans	\$85,000
Step 1	Interest Rate	5% convert to decimal _____
Step 2	Multiply \$85,000 x decimal = interest per year on loan	= _____
Step 3	Add student loans and interest for one year (\$85,000 + _____) Total due for the year	= _____
Step 4	Divide step 3 number by 10 years	= _____
Step 5	Divide step 4 number by the total months in a year _____	= _____

The answer you come up with does not match one of the options, so you have to think about it. If you pay \$37 it is too low and you would owe more interest and take longer to pay, so which one do you think is most likely monthly payment?

5. You decide to become a neurosurgeon. After high school, you will need four years of college, four years of medical school, five years of residency and a two-year fellowship. Assume you graduate high school at 18. How old will you be when you finish training?
- 28 years old
  - 33 years old
  - 35 years old
  - 38 years old

Starting at 18	18
How many years of college	
How many years of medical school	
How many years of residency	
How many years of fellowship	
<b>Add</b> all the numbers up, how old will you be?	