

# Marvelous Meaningful Monthly Math

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*Central Area Tech Prep, Mitchell Technical Institute, and Bridges*

## Information Technology January

### Career – Multimedia Designer

#### Math Activity

Multimedia specialists use math in many areas of their work.

"We need math for everything from writing proposals to developing the flow chart for a website," says Brian Liew, a multimedia designer and media director.

But let's look at math from the programming side of multimedia.

You're a computer programmer doing some freelance work for a multimedia company. They're producing an interactive training CD-ROM for a client. Together with a team of graphic artists and video people, you develop some great ideas.

The artists hand you a series of pictures they want to include in the CD. As the computer programmer, you have to make sure that there'll be enough memory to fit all of these pictures on the CD-ROM.

There are 350 pictures. If you display them in 8 bits of color, they'll each be 200 kilobytes in size. If you display them in 16 bits of color, which would give you better quality, they'll be 400 kilobytes each. Naturally, you want to give your customer the best quality pictures. But will there be enough room on the CD-ROM to have them displayed in 16 bits of color?

You have to figure out how much memory the lower quality pictures will require. How about the higher-grade pictures? You estimate that after the text, sound and animation are included on the CD, 500 megabytes of information will already be accounted for. If the CD-ROM can hold 650 megabytes in total, can you go for the higher quality pictures?

Name \_\_\_\_\_ School \_\_\_\_\_ Teacher \_\_\_\_\_