

## Math Magic Trick 4

### Materials Needed:

Any calculator

### Start:

Step 1) Have a person write down their age three times next to each other to make a six digit number.

example: 161616

Step 2) Divide the number by 1443

112

Step 3) When the person is done the teacher asks for the final number.

### Mental Trick:

Based on this answer the teacher tells the person how old they are.

### How teacher gets the answer:

Dividing the number in Step 3) by 7 gives the original age of the person

### Why it works:

Actually, what you're doing is dividing the six digit number by 10101. When a two digit number is multiplied by 10101 it results in the number in Step 1). Also, the number 10101 is the product of 1443 and 7.

## Math Magic Trick 4 continued

### Variation 1:

#### Materials Needed:

Any calculator

#### Start:

- Step 1) Pick your favorite 3-digit whole number. example: 185
- Step 2) Repeat the digits. 185185
- Step 3) Divide by 13  $185,185/13 = 14245$
- Step 4) Divide by 11  $14245/11 = 1295$
- Step 5) When the person is done the teacher asks for the final number.

#### Mental Trick:

Based on this answer the teacher tells the person what their original 3-digit was.

#### How teacher gets the answer:

Dividing the number in Step 3) by 7 gives the original age of the person

#### Why it works:

Actually, what you're doing is dividing the six digit number by 1001. When a two digit number is multiplied by 1001 it results in the number in Step 1). Also, the number 1001 is the product of 13, 11, and 7.