

There are 10 problems in a math contest. Each correct answer gives you 2 points. For each wrong answer, 1 point is subtracted from the score. James got 8 points in this contest. How many problems did he solve correctly?

$$4 \frac{1}{3}$$

For the PE class, students are arranged by height, from tallest to shortest. In this group, Maria is 5th from the left, Kate is 5th from the right, and there are exactly two people between Kate and Maria. How many people can there be in this class?

$$2 \frac{1}{2}$$

Peter was hired as an intern for 12 weeks. He was supposed to be paid \$2,000 and given a computer. However, Peter had to stop working after 8 weeks due to the flu. He was paid \$1,000 and was given the computer. Assuming he was paid the same amount of money for each week, find out how much was the computer worth.

$$3 \frac{1}{2}$$

Jane lights a candle every 7 minutes. Each candle lasts exactly 12 minutes. How many candles are burning 30 minutes after Jane lit the first candle?

$$5 \frac{1}{2}$$

What is the biggest number of intersections that you can have if you draw two circles and three lines? (You are counting intersections between lines and lines, circles and lines, and circles and circles). Draw a picture.

6|4

Three people (Andy, Brian and Cole) are competing in a race. How many different ways can the prizes for the 1st, 2nd and 3rd place be distributed? (There are no ties).

5|4

How many permutations are there for 3 objects? Write them all down in the following format:

$$\begin{pmatrix} 1 & 2 & 3 \\ \downarrow & \downarrow & \downarrow \end{pmatrix}$$

3|1

$$\begin{array}{r} \\ \\ \hline A \end{array}$$

A= , E= , T= , P= , L= , H=

6|3

Fill in the blank spots in the sequence:

5, 6, __, __, __, 20, 26...

3|3

| | |
|---|-------|
| <p>Columbus discovered America in 1492. How many years ago was this?</p> | $2 1$ |
| <p>Move one digit in the following problem to make the statement true:</p> <p style="text-align: center;">$100-455=5$</p> | $1 1$ |
| <p>A castle is a shape of a square divided into 100 square rooms which are equal in size. Each of the walls between two rooms has a door. Each of the outer walls has a window. How many doors are there? How many windows are there?</p> | $7 4$ |
| <p>On the planet of Twelvia, all the objects are $\frac{1}{12}$th the size of objects on Earth.</p> <p>(a) How many standard envelopes from Twelvia can you lay on top of a standard envelope from Earth to cover it? (The smaller envelopes should cover the bigger one exactly, with no extra parts hanging over).</p> <p>(b) How many standard shoe boxes from Twelvia can you put inside of a standard shoe box from Earth so that they fill it exactly?</p> | $9 5$ |
| | |

Elijah wrote a huge number by writing numbers 1, 2, 3, 4, ..., 498, 499, 500 in a row:

123456....497498499500

After that, Elijah erased the first 500 digits of this number. What digit does the remaining number start with?

8|4

Cut a round pancake into 4, 5, 6, 7 parts using exactly 3 straight cuts each time.

7|5

Ariella, Lev, Turandot, Richard, Dana and Lydia came to the math circle. Each pair of them exchanged a high-five with everyone in the group. How many high-fives were there in all?

5|5

Snow White took a silk square sheet, cut it into 4 squares and put it into a trunk. The First Dwarf took out one of the squares, cut it into 4 squares and put all the pieces back. The Second Dwarf took out one of the squares, cut it into 4 squares and put all the pieces back as well. How many pieces will there be in all after the Third through Seventh Dwarf do the same thing?

8|7

Winnie the Pooh likes to drink tea with milk. He poured some milk into his tea, but then changed his mind and decided to have tea without milk. So, Winnie the Pooh poured some of the mixture back into the milk jar that was the same amount of milk he originally added to his tea. He now has two mixtures: his mug of tea, mixed with some milk, and the jar of milk mixed with some tea. Is there more milk in his tea or more tea in his milk?

0|0

Every letter in the alphabet is replaced by a number corresponding to its place in the alphabet (Make sure to get the table). Decode the following words from the given digits below:

1215225

22112215

6|6

Every letter in the alphabet is replaced by a number corresponding to its place in the alphabet (Make sure to get the table). Decode the following word from the given digits below:

1212015131529125

9|6

Make the following Roman Numeral problems true by moving around the digits given:

$$V = II + VIII$$

$$VI = II + VIII$$

$$VII = II + VIII$$

5|3