

WEDNESDAY MORNING MATH - LEVEL 1, PROBLEM 1

Mrs. Coleman was cleaning up the second grade hallway. She noticed that there were a lot of pencils on the floor. She found 37 pencils in all, but was so tired that she could only pick up 16 of them.

How many pencils were left on the floor? How do you know?
Show your work below.

37-16 = 21 pencils left on the floor

**WEDNESDAY MORNING MATH -
LEVEL 1, PROBLEM 2**

The corner store is having a sale on doughnuts.

The first one that you buy costs 7 cents.

After you buy one, all of the rest cost 4 cents each.

Ginny bought 8 doughnuts.

How much did she spend in all? Show your work below.

$$\begin{aligned} 8 \text{ doughnuts} &= 7 + 4 + 4 + 4 + 4 + 4 + 4 + 4 \\ &= 35 \text{ cents} \end{aligned}$$

**WEDNESDAY MORNING MATH -
LEVEL 1, PROBLEM 3**

Five clowns came to visit Collegiate. They started to juggle different colored balls.

Mr. Chapman tried to count how many balls the clowns were juggling, but it was too hard. Mrs. Lewis finally decided they were juggling 18 balls in all. Mrs. Hallett thought there were 15 balls.

If the clowns were really juggling 3 balls each, who was right, Mrs. Lewis or Mrs. Hallett? How do you know?

Use pictures, numbers, or words below to show how you figured out your answer.

5 clowns x 3 balls = 15 balls
Mrs. Hallett was correct

WEDNESDAY MORNING MATH - LEVEL 2, PROBLEM 1

Every Friday the students in Mrs. Long's class who have completed their homework all week get to play Homework-Free Friday. Mrs. Long has three 10-sided dice, each with the digits 0 through 9. Each eligible student rolls all three dice. If the sum of the three dice is equal to the day's date, the student is excused from homework for the weekend.

On one Friday, the 15th of the month, Donna rolled an 8 on the yellow die first. How many different ways can the blue and red dice land to win her a weekend free of homework? **8 different ways**

1 st die	2 nd die	3 rd die
8	0	7
8	1	6
8	2	5
8	3	4
8	4	3
8	5	2
8	6	1
8	7	0

WEDNESDAY MORNING MATH - LEVEL 2, PROBLEM 2

Mrs. Lewis wants to organize a kickball tournament for the fourth graders in her school. She will divide the fourth grade into 6 equal kickball teams. Ms. Madden's fourth grade class has 20 students, Mr. Smoyer's fourth grade class has 23 students, and Ms. Ponzio's fourth grade class has 29 students.

How many students will be on each team? Be sure to tell how you found your answer.

$$20 + 23 + 29 = 72 \text{ students}$$

$$72 \text{ divided into } 6 \text{ groups} = 12 \text{ students per team}$$

**WEDNESDAY MORNING MATH –
LEVEL 2, PROBLEM 3**

Alex and her mother share the same birthday. On Alex's 8th birthday her mother turned 32. Alex noticed that her mother's age was exactly 4 times her own age.

Alex wondered if it were ever possible for her mother's age to be 3 times her own age.

Is that possible? If so, how old would Alex be and her mother be at that time? Show your work below.

When Alana is 8, her mother is 32. That means her mother is 24 years older.

When Alana is 12, her mother will be 36, which is 3 times her age.

WEDNESDAY MORNING MATH - LEVEL 3, PROBLEM 1

Mr. Nelson's students play a game called Just the Facts to help them learn multiplication facts. Each player in turn rolls a pair of 10-sided dice and announces the product of the two numbers. Another player checks the product with a calculator. If the answer given is correct, the player scores 5 points.

Mr. Nelson wants to discourage his students from guessing, so the penalty for an incorrect answer is losing 7 points.

Zach and George played 24 rounds. At the end Zach's score was 0.

Out of his 24 turns, how many multiplication facts did Zach get correct?

Correct	incorrect
5	7
10	14
15	21
20	28
25	35
30	42
35	49
40	56
45	63
50	70 *****
55	
60	
65	
70 *****	

After 14 correct answers, his score will be 0

WEDNESDAY MORNING MATH – LEVEL 3, PROBLEM 2

The zoo has a train that carries people between exhibits. One morning the first passengers got on at Monkey House. At Alligator Pond the number of people who got on was 3 more than got on at Monkey House.

The train made 4 more stops: Tiger Thicket, Panda Playground, Giraffe Savannah, and Big Cats. At each of these stops, 3 more passengers boarded the train than at the previous stop. At Big Cats 20 people got on the train. How many passengers in all boarded the train?

Monkey House = 5

Alligator Pond = 8

Tiger Thicket = 11

Panda Playground = 14

Giraffe Savannah = 17

Big Cats = 20

$5 + 8 + 11 + 14 + 17 + 20 = 75$ total

WEDNESDAY MORNING MATH – LEVEL 3, PROBLEM 3

I don't drive very much during the week because I live and work in the city of Philadelphia so I can take the subway anywhere I want to go. When I do drive, I usually take longer trips out of the city, and I like to watch my odometer for interesting numbers. I especially like palindromes, which read the same forward and backward, and I refer to my traveling as "palindriving." One of the first palindromes I noticed in my car a long time ago was when my odometer read 1551 miles.

During October I am helping a friend build a fence in Peapack, New Jersey. I'm driving up each Saturday and returning on Sunday night. I also know that during October I'll make one trip to Swarthmore, Pennsylvania to visit a friend and another trip to Newark, Delaware. I checked a map web site to find the distances to these places.

One-way distances from Philadelphia, Pennsylvania to:

Peapack, NJ = 76 miles \times 4 \times 2 (round trip) = 608

Swarthmore, PA = 18 miles \times 2 = 36

Newark, DE = 43 miles \times 2 = 86

If my odometer reads 63325 on October 1, and I take only the trips above, how many palindromes will I have a chance to see in October?

$$63325 + 608 + 36 + 86 = 64055$$

From 63325 to 64055 there are 8 palindromes

63336, 63436, 63536, 63636, 63736, 63836, 63936, 64046

WEDNESDAY MORNING MATH - LEVEL 4, PROBLEM 1

The Supreme Court of the United States is the highest court in the country. It consists of a Chief Justice and 8 Associate Justices.

The Court begins each term on the first Monday in October. Suppose that on that first day, each Justice greets every other Justice by shaking hands exactly once.

How many handshakes would take place? Be sure to show and explain your math below.

With 9 total Justices, you would have 36 handshakes.

The first person will have 8 new handshakes, the 2nd person will have 7 non-repeating handshakes, the 3rd person will have 6 non-repeating shakes, and so on....

$$8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 36$$

WEDNESDAY MORNING MATH - LEVEL 4, PROBLEM 2

Continued from the last problem....

In 1937 President Franklin D Roosevelt proposed an increase in the size of the Supreme Court. Under his plan it would have taken 105 handshakes for the Justices to greet each other. How many Justices did FDR want on the Court? Be sure to show and explain your math below.

$14+13+12+11+10+9+8+7+6+5+4+3+2+1 = 105$ handshakes
So, there would be 15 justices.

**WEDNESDAY MORNING MATH -
LEVEL 4, PROBLEM 3**

(GOOD HINT: the sum will be 50!)

17	12	16	5
6	15	11	18
7	14	10	19
20	9	13	8

Help fill in the magic square above so that all of its "powers" work: all the rows, columns, and diagonals must have the same sum. In addition, the quarters (4 upper left squares, 4 upper right squares, 4 lower left squares, & 4 lower right squares) and her center 4 squares must have the same sum.

Use the numbers 5, 7, 8, 9, 13, 14, 15, 17, 18, & 20.