Meeting 10
Quarter Review

March 18, 2012

1. Insert signs (plus or minus) between some of the numbers to get a correct statement:

\[
\begin{align*}
3 & \quad 3 \quad 3 = 30 \\
3 & \quad 3 \quad 3 \quad 3 \quad 3 = 30
\end{align*}
\]

2. Cut the shape into 4 pieces which are equal in size and in shape.
3. Melinda took a square with side 10 cm and cut it into squares with side 1 cm. She then rearranged all these small squares into a row (a strip). How long is the strip?

4. Fill in the missing digits

```
  7
- 6
  4 7
```
5. Jack drew a point on a piece of paper. Next, he drew four different straight lines going through this point. Into how many pieces did those lines divide the piece of paper?

6. Magic Square: Insert the missing numbers

\[4, 5, 6, 8, 9, 10\]

so that the square is magic.
7. I have 36 toys. 6 of them are toy cars and 10 are bouncing balls. The rest of the toys are blocks. Julie built 4 identical towers out of the blocks. Assuming each block is a toy piece, how many blocks were needed for each tower?

8. You have 13 bananas. Can you divide them between 5 monkeys so that each monkey gets a different number of bananas? Explain why or why not.
9. Fill in the missing digits.

\[
\begin{array}{c}
3 \\
+ \\
\hline
6 \\
\end{array}
\]

\[
\begin{array}{c}
6 \\
\end{array}
\]

10. Tara has a box of 20 cubes with side length 1 centimeter. She wants to put several cubes together to make cubes with side length 2 centimeters.

(a) How many cubes with side length of 2 centimeters can she make?

(b) Will all 20 cubes be used? If not, how many will be left over?
11. Grace is taller than Ann, but shorter than Tanie. Irena is taller than Kate, but shorter than Grace. Which of the girls is tallest?

12. The sum of two different numbers is 45. At least one of them is less than
   (a) 5
   (b) 18
   (c) 20
   (d) 22
   (e) 23

13. Do the following nets make cubes when put together? Circle Yes or No.

   Yes       No
Yes  No

Yes  No

Yes  No
14. Fill in the missing digits.

\[
\begin{array}{cc}
\text{7} & \\
\text{3} & \\
\hline
\text{9} & \text{9}
\end{array}
\]

15. How many routes are there from the left lower corner to the right upper corner that only go along the grid lines?

16. Put + signs between some of the digits to get a true statement:

(Earn an extra point if you can find more than one way to do this!)

\[
\begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 = 100 \\
1 & 2 & 3 & 4 & 5 & 6 & 7 = 100
\end{array}
\]
17. 3 chickens laid 30 eggs in 3 days. How many eggs will 1 chicken lay in 6 days?

18. Jeffrey and Michelle each have 20 colored pencils. Jeffrey tells Michelle that he doesn’t need so many pencils because he prefers markers. If he gives her some of his pencils, how many should he give Michelle in order for her to have 8 more than Jeffrey?
19. In 2008, the Math Kangaroo took place in some school for the seventeenth time. Maggie took part in the seventh Math Kangaroo when she was 10 years old. In what year was Maggie born?

20. Greg likes to multiply by 3, Jim likes to add 2, and Michael likes to subtract 1. In what order should the boys perform their favorite operations, each one only once, so that starting with the number 3 they end up with 14?
21. Mother went out into her garden to pick ripened apples. In the first hour she picked 16 apples. How many apples did she pick in the second hour if it is known that in 30 minutes, her daughter cleaned all the apples that her mother had gathered, and she cleaned 5 apples every 5 minutes?

22. What number do we need to put in the first square in order to get 25 as the result after doing all the operations shown below?

\[ \square \rightarrow +10 \rightarrow \heartsuit \rightarrow \times 2 \rightarrow \text{Cloud} \rightarrow -3 \rightarrow 25 \]