Catch of the Day

Name _____

You are going fishing and must catch a specified number of fish each day. All "catches" must include the following fish: snapper, grouper, and tuna. The captain of the fishing boat has determined how many of each of the three kinds of fish are needed and has provided clues for the crew to use to figure out how many of each type of fish must be caught. You may use colored chips or cubes to represent the fish caught.

Monday's Catch of the Day

3 snapper
2 more tuna than snapper
15 fish in all

S = _____ T = _____ G = _____

Tuesday's Catch of the Day

6 snapper
1/2 as many tuna as grouper
12 fish in all

S = _____ T = _____ G = _____

Wednesday's Catch of the Day

3 snapper
4 times as many tuna as snapper
23 fish in all

S = _____ T = _____ G = _____

Thursday's Catch of the Day

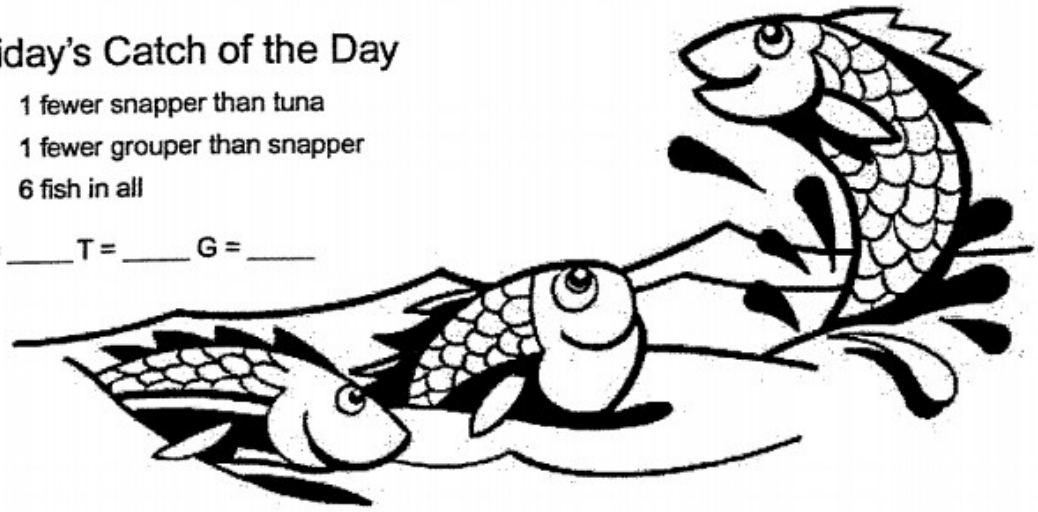
1/4 of the catch is snapper.
1/3 of the catch is grouper.
12 fish in all

S = _____ T = _____ G = _____

Friday's Catch of the Day

1 fewer snapper than tuna
1 fewer grouper than snapper
6 fish in all

S = _____ T = _____ G = _____



EXERCISES

Proper-T-Practice

Each of the following computations could be simplified by applying one of the properties listed at the right below. For each computation, identify the property or properties used and place the code letter on the line in front of the computation.

___ 1. $(96 + 56) + 44 = 196$

___ 2. $(56 \times 29) + (56 \times 71) = 5600$

___ 3.
___ 4. } $132 + (51 + 68) = 251$

___ 5. $4 \times (250 \times 29) = 29000$

___ 6. $21 + (39 + 0) = 60$

___ 7. $(121 \times 49) - (21 \times 49) = 4900$

___ 8.
___ 9. } $8 \times (57 \times 125) = 57000$

___10. $(56 \times 1) \times 4 = 224$

___11. $(46 \times 27) + (54 \times 27) = 2700$

Properties of Whole Numbers

(C) commutativity for addition

(M) associativity for addition

(E) identity for addition

(H) commutativity for multiplication

(A) associativity for multiplication

(I) identity for multiplication

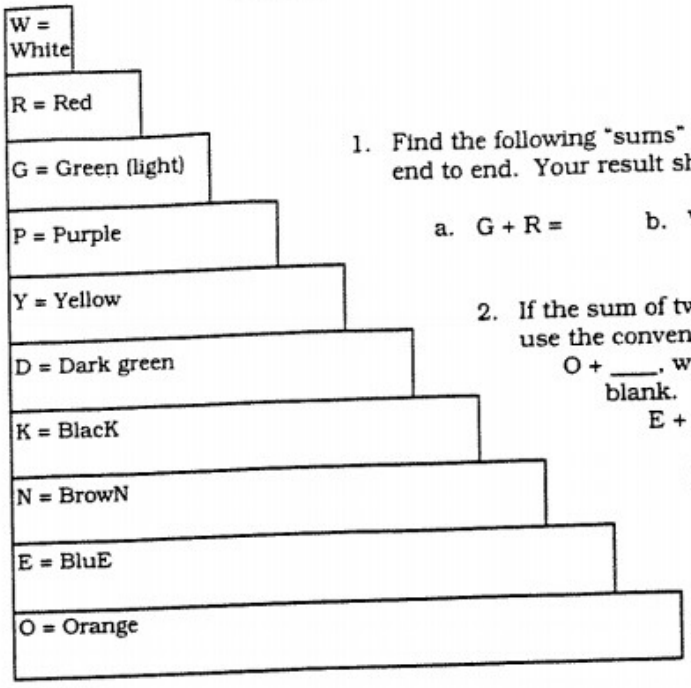
(T) distributivity for multiplication over addition

(S) distributivity for multiplication over subtraction

Now unscramble these 11 code letters to identify a subject that is an art and a tool, as well as a science.

_ _ _ _ _ _ _ _ _ _ _

OBJECTIVE: **Compute sums using a measurement model**



1. Find the following "sums" by placing your centimeter strips end to end. Your result should be a color.

   a. G + R = b. W + Y = c. P + Y =

2. If the sum of two strips exceeds O(range), we will use the convention of expressing the answer as O + ____, where the 'excess' color goes in the blank. For example,
   E + G = O + R. (Verify this!)

   Find these sums:

   a. K + E =

   b. N + D =

   c. K + K =

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1. Find the following "sums" with your centimeter strips. Again, your result should be a color.

   a. K + N = b. N + K =
   c. Y + R = d. R + Y =
   e. G + D = f. D + G =

2. What relationship do you find between (a) and (b), (c) and (d), and (e) and (f)? Explain.

3. Fill in the portion of this table above the dotted line.

4. Use your discovery in part 2 to complete the rest of the table.

+	W	R	G	P	Y
W	R	G			D
R					
G					
P					
Y					

---

1. Compute W + R. To this result add Y. We write this as (W + R) + Y where the parentheses tell you which part to add first. In summary, (W + R) + Y = _____ .

2. Now consider W + (R + Y). Which sum do you find first? Record your result. How does this result compare with part 1?

3. Compute these sums.

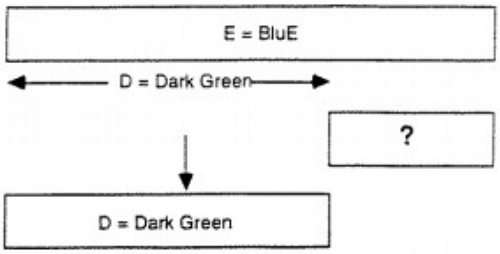
   a. (P + R) + G = b. P + (R + G) =
   c. (R + G) + Y = d. R + (G + Y) =

   What do you notice?

OBJECTIVE: **Represent subtraction using a measurement model**

You Will Need: Your centimeter strips (Activity 3.1)

1. To build a bird house, Maxime needs a board 25 cm long which he will cut from a larger board. This **"take-away" approach** can be modeled with your centimeter strips. For example, imagine that a blue strip is the larger board and a dark green centimeter strip represents the length he will cut off. If the blue strip were shortened by taking away the length of the dark green as pictured, how long is the result E – D?



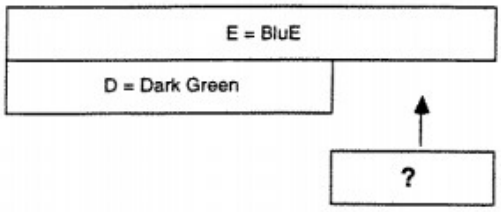
2. Use this take-away approach to find the following differences.

   a. O – Y = b. (O + R) – K = c. (O + P) – D =

3. Marcie lives 13 blocks from the mall. If she has walked 6 blocks toward the mall, how many more blocks must she walk to reach the mall? In this case, we are looking for what needs to be added to 6 to obtain the result of 13. The picture below illustrates how this approach would find E – D. Use your strips to solve the following:

   a. Y + ___ = O b. K + ___ = O + R

   c. D + ___ = O + P



   In these problems, you were looking for the **"missing addend."** How do the addition problems in part 3 relate to the subtraction problems in part 2?

4. Rewrite each of the following subtraction problems into its missing-addend equivalent and find the solution.

   a. N – R = ___ b. K – D = ___ c. (O + W) – Y = ___

5. The table to the right is the one you should have obtained in Activity 3.2. Using the missing-addend approach and this table, find the following differences.

   a. N – Y = ____ b. O – Y = ____

   c. K – P = ____ d. P – R = ____

   Use your centimeter strips to check your results.

+	W	R	G	P	Y
W	R	G	P	D	K
R	G	P	Y	D	K
G	P	Y	D	K	N
P	Y	D	K	N	E
Y	D	K	N	E	O