

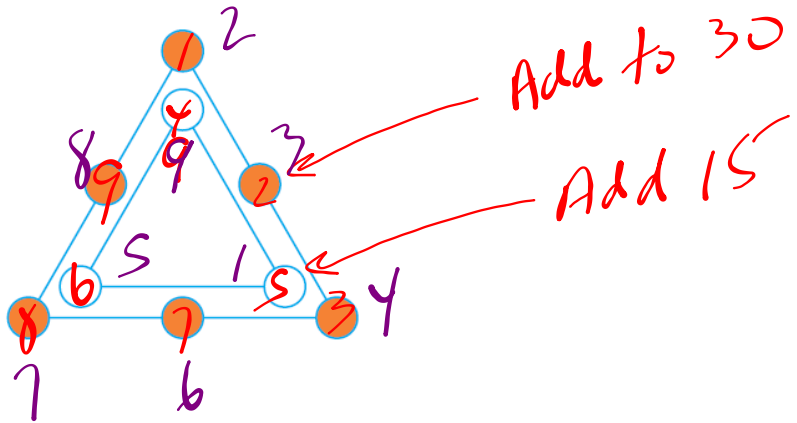
HOMEWORK...

**p. 48: #1 - 13
(OMIT #5, 8, 10, 11)**

Questions

② ④ ⑥

2. Copy this diagram. Place the digits 1 through 9 in the circles so that the sum of the numbers on the outside triangle is double the sum of the numbers on the inside triangle. Explain whether more than one solution is possible.



1+2+3+4+5+6+7+8+	
9	45
30+15	45

4. a) Substitute numbers for the letters to create an addition problem with a correct answer.
 b) How many solutions are possible?

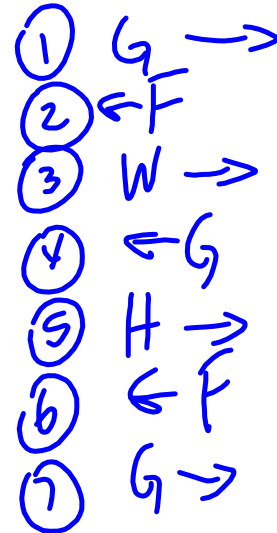
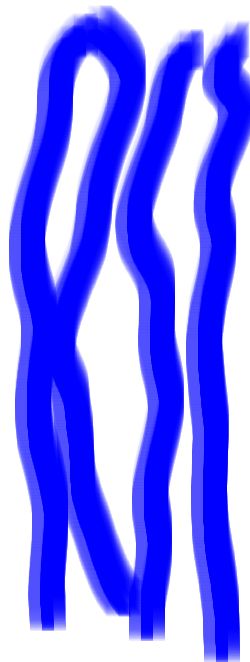
$$\begin{array}{r}
 y \\
 xxx \\
 xxx \\
 xxx \\
 + xxx \\
 \hline
 yxxx
 \end{array}$$

a) $x = 3$
 $y = 1$

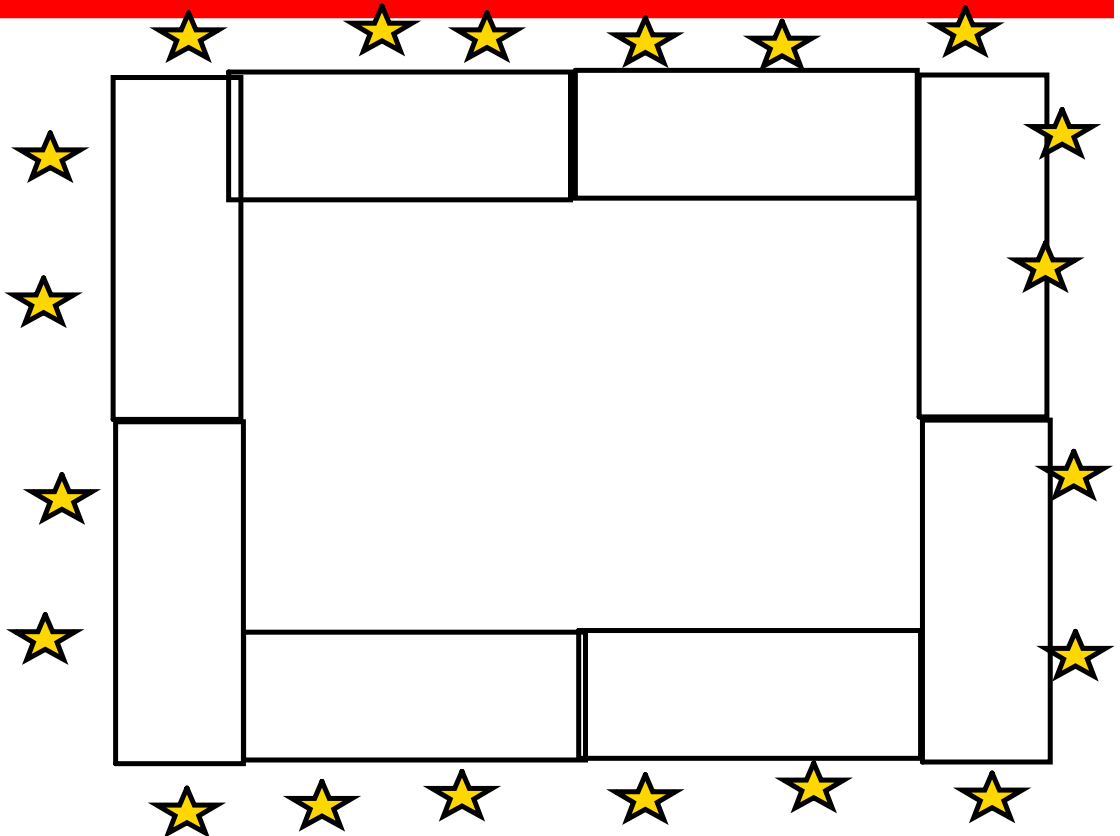
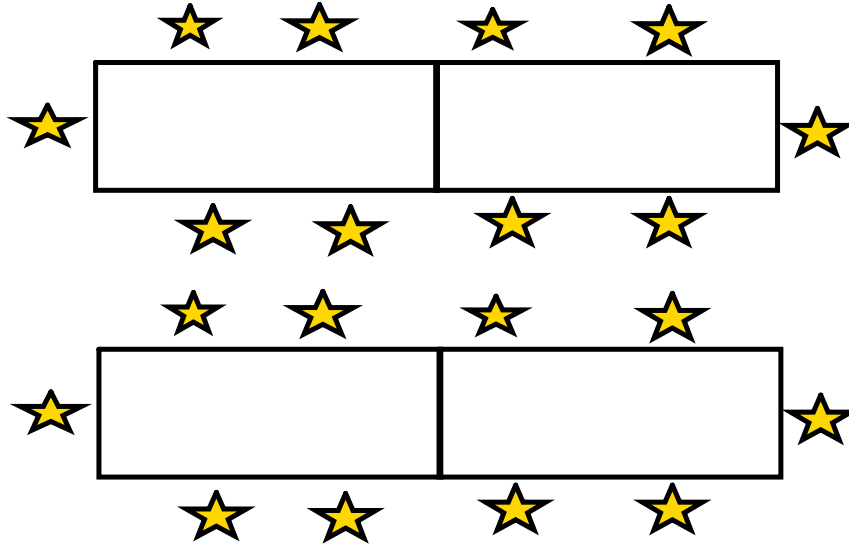
b) $x = 6$
 $y = 2$

$x = 9$
 $y = 3$

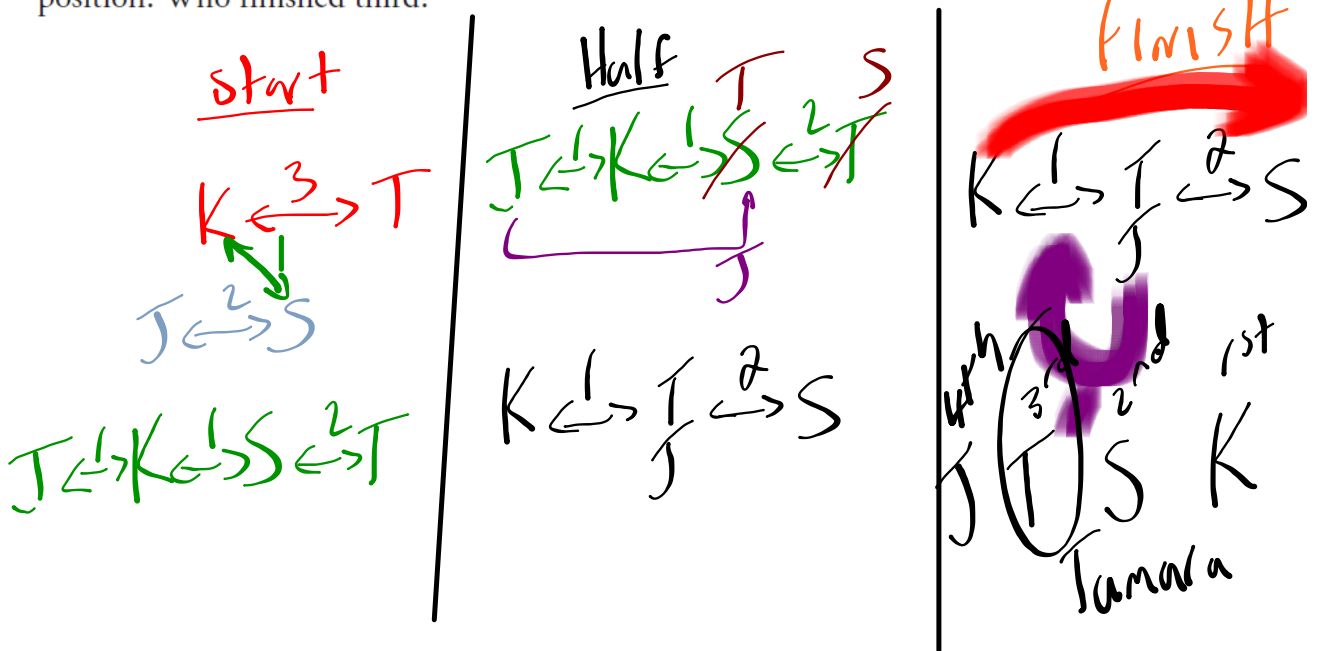
6. A farmer wants to get a goat, a wolf, and a bale of hay to the other side of a river. His boat is not very big, so it can only carry him and one other thing. If the farmer leaves the goat alone with the bale of hay, the goat will eat the hay. If he leaves the wolf alone with the goat, the wolf will eat the goat. When the farmer is present, the goat and the hay are safe from being eaten. How does the farmer manage to get everything safely to the other side of the river?



12. At lunchtime, a soccer team meets in the school cafeteria to help organize a tournament. There are 18 players and 2 coaches at the meeting. The tables in the cafeteria are rectangular. Two people can sit on each of the long sides, and one person can sit at each end.
- What arrangement of tables would enable the team members to sit as close to each other as possible, so that everyone can be heard?
 - Compare your solution with other students' solutions. As a group, decide which is the best solution for the team.



13. Early in a bicycle race, Tamara led Kateri by 3 km, while Justine was behind Shreya by 2 km. Shreya was ahead of Kateri by 1 km. By the halfway point, Tamara and Shreya had exchanged places, but they were still the same distance apart. Justine had pulled even with Tamara. Over the last part of the race, Justine dropped 1 km behind Tamara, and Kateri passed Shreya; there were no other changes of position. Who finished third?



WARM UP PROBLEM: Need 4 gallons using only a 3 and 5 gallon jugs???



Handwritten notes in purple ink:

(3) (5)
 3 → 3
 0 → 3
 3 → 3
 1 → 0
 0 → 3
 3 → 3
 0 → 3
 (4)

Handwritten notes in blue ink:

5 → 3
 2 → 3
 0 → 3
 5 → 3
 (4)

SOLUTIONS... Die Hard

- Step 1. Fill 5 gallon jug
- Step 2. Pour 5 gallon jug into 3 gallon jug, leaving 2 remaining gallons in 5 gallon jug.
- Step 3. Empty 3 gallon jug.
- Step 4. Pour 2 gallons from 5 gallon jug into 3 gallon jug, leaving 1 gallon of empty space.
- Step 5. Refill 5 gallon jug.
- Step 6. Pour water from 5 gallon jug into 3 gallon jug, which already has 2 gallons in it, and only 1 gallon of empty space, leaving exactly 4 gallons in the 5 gallon jug.

- there is an alternate way to solve this:
1. fill the 3 gallon jug
 2. pour that 3 gallons into the 5 gallon jug
 3. refill the 3 gallon jug
 4. fill the 5 gallon jug to the top, leaving 1 gallon in the 3 gallon jug
 5. empty the 5 gallon jug
 6. pour the 1 gallon from the 3 gallon jug into the 5 gallon jug
 7. refill the 3 gallon jug
 8. pour that 3 gallons into the 5 gallon jug which already has 1 gallon in it for a total of 4 gallons.

Assignment → TRY ALL S!

* Quiz on Tuesday

Text Chp. 1

Practice
(omit 1.7)

Self Test

FAW