



MATH I 1.1 USE A PROBLEM SOLVING PLAN

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A PROBLEM SOLVING PLAN

- **Read and Understand**
- Read the problem carefully. Identify what you know and what you want to find out.
- **Make a Plan**
- Decide on the approach to solving the problem.
- **Solve the Problem**
- Carry out your plan. Try a new approach if the first one isn't successful.
- **Look Back**
- Once you obtain your answer, check to see that it is reasonable.



EXAMPLE 1

- A group of people go to a play. Adult tickets cost \$8 and tickets for children under twelve years of age cost \$5. There are 4 children under twelve. The group spends \$44 for all the tickets. How many adults attended the play?



READ AND UNDERSTAND

- **What do you know?**
- You know the cost of each ticket.
- You know the number of children attending.
- **What do you want to find out?**
- You want to find the number of adult tickets purchased.



MAKE A PLAN

- Use what you know to write a verbal model that represents what you want to find out.



$$8 \quad X \quad a \quad + \quad 5 \quad X \quad 4 \quad = \quad 44$$



SOLVE THE PROBLEM

- $8a + 5(4) = 44$
- $8a + 20 = 44$ (remember order of operations!)
- The book says to guess, but you know how to solve equations!
- $8a + 20 - 20 = 44 - 20$
- $8a = 24$
- $a = 3$

- So...the group bought 3 adult tickets.



LOOK BACK

- Each adult ticket purchase adds \$8 to the total cost. Make a table.

# of adults	0	1	2	3	4
Total Cost	\$20	\$28	\$36	\$44	\$52



NOW YOU TRY! IDENTIFY WHAT YOU KNOW
AND WHAT YOU NEED TO FIND OUT. YOU DON'T
HAVE TO SOLVE THE PROBLEM

- A salesman is reimbursed \$50 a day for food and lodging. He also receives \$.35 for each mile driven. He drives 124 miles and is reimbursed \$193.40. How many days was the trip?



WHAT DO YOU KNOW?

- The amount reimbursed per day.
- The amount received per mile driven.
- The total amount of traveling expenses.



WHAT DO YOU NEED TO FIND OUT?

- How many days was the trip.



CLASSWORK / HOMEWORK

- Classwork: p. 4 2 – 10 even
 - Work in groups!
 - Homework....copy for tonight
 - p. 5 2 – 10 even
 - Interest = Principal (Rate)(Time)
 - $I = Prt$

