

Things to remember when using guess and check.

1. Read the problem carefully, twice.
2. State the problem to be solved in your own words.
3. Guess at an answer and check how close you are.
4. If possible, start with a number in the middle of a range of possible guesses.

**Directions:** Use the information on page 29 and the reminders above to help you solve these problems.

1. Danielle bought several tops for \$9.50 each and some skorts (skirt/shorts) for \$18.00 each. She spent \$129.00 for 10 pieces. How many tops did she buy? How many skorts did she buy?  
 Guess #1: tops \_\_\_\_\_ skorts \_\_\_\_\_  
 Guess #2: tops \_\_\_\_\_ skorts \_\_\_\_\_  
 Guess #3: tops \_\_\_\_\_ skorts \_\_\_\_\_  
 Answer: tops \_\_\_\_\_ skorts \_\_\_\_\_
2. Liz has \$0.93 in a total of nine coins. She does not have a half dollar. How many of each coin does she have?  
 pennies \_\_\_\_\_ nickels \_\_\_\_\_ dimes \_\_\_\_\_ quarters \_\_\_\_\_
3. Albert found \$1.41 in a total of nine coins in the sofa. What two combinations of coins could he have?  
 A. pennies \_\_\_\_\_ nickels \_\_\_\_\_ dimes \_\_\_\_\_ quarters \_\_\_\_\_ half dollars \_\_\_\_\_  
 B. pennies \_\_\_\_\_ nickels \_\_\_\_\_ dimes \_\_\_\_\_ quarters \_\_\_\_\_ half dollars \_\_\_\_\_
4. You did 60 math problems in five days. On each day you did 3 more problems than the day before. How many math problems did you do each day?  
 Day 1 \_\_\_\_\_ Day 2 \_\_\_\_\_ Day 3 \_\_\_\_\_ Day 4 \_\_\_\_\_ Day 5 \_\_\_\_\_
5. On a five-day vacation trip by car, you traveled 50 miles farther each day than the day before. You traveled 2,000 miles. How many miles did you travel each day?  
 Day 1 \_\_\_\_\_ Day 2 \_\_\_\_\_ Day 3 \_\_\_\_\_ Day 4 \_\_\_\_\_ Day 5 \_\_\_\_\_
6. A bag of sporting equipment has 14 balls. There are 2 times as many tennis balls as baseballs. There is 1 less basketball than there are baseballs. There are 3 footballs. How many balls of each type are in the bag?  
 footballs \_\_\_\_\_ tennis balls \_\_\_\_\_ baseballs \_\_\_\_\_ basketballs \_\_\_\_\_
7. Jack's dad is 40 years old. Jack is 14 years old. How old will each of them be when his dad is twice as old as Jack?  
 Jack \_\_\_\_\_ Dad \_\_\_\_\_
8. Marie is 13 years old and her mother is 35 years old. How old will each of them be when Marie is half of her mother's age?  
 Marie \_\_\_\_\_ Mother \_\_\_\_\_

Things to remember when working backwards to solve problems.

1. Read the problem carefully, twice.
2. State the problem to be solved in your own words.
3. Work backwards from the end of the problem using the facts given.
4. Always check your answer by working forwards.

**Directions:** Use the information on page 29 and the reminders above to help you solve these problems.

1. Sandy went to the coolest clothing store in the mall, Frederica's Funky Fashions. She spent half of her money on a dance outfit she just had to have. She spent \$100.00 of her remaining money on a pair of running shoes. Then she spent half of the money she had left on an outfit with the logo of her favorite singer. She had \$40.00 remaining. How much money did she have to start?

Work Backwards: \$40.00 x 2

Answer: \_\_\_\_\_

Check: \_\_\_\_\_

2. Loretta uses beads to make wristbands for her friends. She lost  $\frac{1}{2}$  of her beads when they fell on the grass on her way to school. She used 300 of the remaining beads to make a wristband for her sister and 250 beads to make a headband for a friend. She now has 800 beads left. With how many beads did she start?

Work Backwards: \_\_\_\_\_

Answer: \_\_\_\_\_

Check: \_\_\_\_\_

3. Frederica's Funky Fashions had a pile of clothes on a sales table. There were twice as many shorts as jeans. There were 4 times as many blouses as there were jeans. There were half as many skirts as there were jeans. Half of the skirts were blue. There were 8 blue skirts. How many jeans, shorts, blouses, and skirts were in the pile and what was the total number of clothes on the table?

Work Backwards: \_\_\_\_\_

Answer: \_\_\_\_\_

Check: \_\_\_\_\_

4. Melissa spent twice as much money as Doreen in Frederica's. Alyse spent half as much money as Doreen did. Christina spent half as much money as Alyse did. Elaine spent \$12.00, which was half as much as what Christina spent. How much did each girl spend? How much did they spend altogether?

Work Backwards: \_\_\_\_\_

Answer: \_\_\_\_\_

Check: \_\_\_\_\_

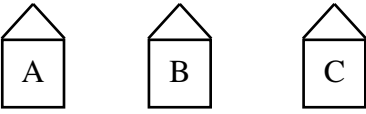
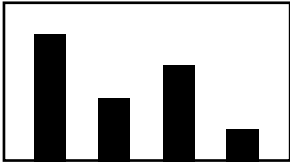
5. John is  $1\frac{1}{2}$  years older than Brett. Robert is 5 years older than John. Raymond is  $1\frac{1}{2}$  years younger than Brett. James is 2 years old. He is 1 year younger than Raymond. How old is each boy?

Work Backwards: \_\_\_\_\_

Answer: \_\_\_\_\_

Check: \_\_\_\_\_

A visual can be a . . .

Chart	Diagram	Graph						
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<i>Hits</i>	<i>Innings</i>							
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<p><i>Runs Scored</i></p> <p>4</p> <p>3</p>	<table border="1" style="margin: auto;"> <tr> <td>Runs</td> <td>1</td> </tr> <tr> <td>Hits</td> <td>4</td> </tr> <tr> <td>Errors</td> <td>0</td> </tr> </table>	Runs	1	Hits	4	Errors	0	
Runs	1							
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**Directions:** On another sheet of paper, use a visual to help you solve each of these problems.

1. A marathon runner ran one mile in 5 minutes, walked one mile in 8 minutes, and rested for one minute before repeating the pattern. At this rate, how long would it take the runner to cover 26 miles?

Type of Visual: \_\_\_\_\_

Answer: \_\_\_\_\_

2. There are 32 basketball teams in a middle school sudden death elimination tournament. The winning team in each contest goes on. How many games must be played to find the winning team?

Type of Visual: \_\_\_\_\_

Answer: \_\_\_\_\_

3. A baseball player got on base 9 times in every 17 at bats. How many times did he get on base in 153 at bats?

Type of Visual: \_\_\_\_\_

Answer: \_\_\_\_\_

4. The team mascot at Skunkfield Middle School was a striped skunk. The principal agreed to let the students name the mascot using any two of the following six names: Polecat, Stinker, Putrid, Fragrant, Sweety, and Scented. A name such as Polecat

Sweety is different than Sweety Polecat. How many different name possibilities are there?

Type of Visual: \_\_\_\_\_

Answer: \_\_\_\_\_

5. A player on a middle school basketball team made 3 points in her first game. She made 2 more points than her first game in her second game and 3 more points than her second game in her third game. She continued to add 2 points and then 3 points in all of her succeeding games. In which game did she score 20 points? In which game did she score 35 points?

Type of Visual: \_\_\_\_\_

Answer: \_\_\_\_\_

6. In a middle school basketball tournament, six out of every 16 students are 12 years old, five are 13 years old, three are 11 years old, and two are 14 years old. There are 112 players in the tournament. How many players are 13 years old?

Type of Visual: \_\_\_\_\_

Answer: \_\_\_\_\_