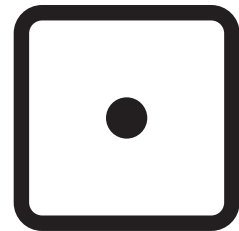
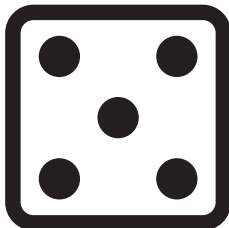
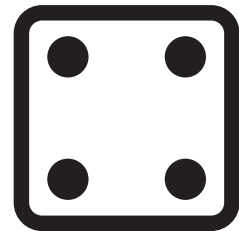


Dice Activities for Time and Money

Measurement • Data • Problem Solving



Mary Saltus, Diane Neison, Chet Delani

Dice Activities for Time and Money

Foreword

Successful math students construct their own strategies for solving problems and performing mathematical operations. The activities in *Dice Activities for Time and Money* were created by teachers to engage students in developing fluency in the mathematical concept of measurement in relation to time and money. These activities are designed to empower students with the ability to address mathematical problems with a sense of curiosity and confidence.

Dice Activities for Time and Money focuses on the Common Core standard of Measurement, specifically as it relates to time and money. They also address the Mathematical Practice standards related to problem solving, reasoning, and communication. The activities in this book are easily integrated into a scope and sequence whenever the topics of time and money are addressed. In many instances the teacher will want to replace the activity in the school-based text with those found in this book, as they are challenging, stimulate an interest in and curiosity about math, and are more apt to provide long-term mastery.

The authors currently use *Dice Activities for Time and Money* as part of their curriculum to train elementary school teachers in how to teach mathematics. The activities require only the use of dice, a commonly available manipulative, a clockface with movable hands for the time activities, and money (pennies, nickels, dimes, quarters) for the money activities. They are easily adapted to home schooling and for parents who wish to participate in the mathematics education of their children. Most importantly, they provide an opportunity for students to play with big mathematical ideas without paper-and-pencil drill. The activities are engaging, generate a friendly competition, and provide an immediate use for and reason to learn these mathematics concepts.

Our work is continually expanding, and we welcome any suggestions for modification of these activities that will lead to greater mathematical thinking on the part of our students.

—Mary Saltus, Diane Neison, and Chet Delani

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Hour Chart – Find the Time (Two Dice)

- Each team tosses a die. The higher number goes first.
- The teams share a chart.



How to Play

- Taking turns, the teams toss two dice and find the sum. The sum is the hour.
- Optional: Show the hour on the clock with movable hands.
- Place a token on a clock that shows that hour.
- If the hour is not available, lose a turn.
- When the chart is full, the team with the most tokens wins.

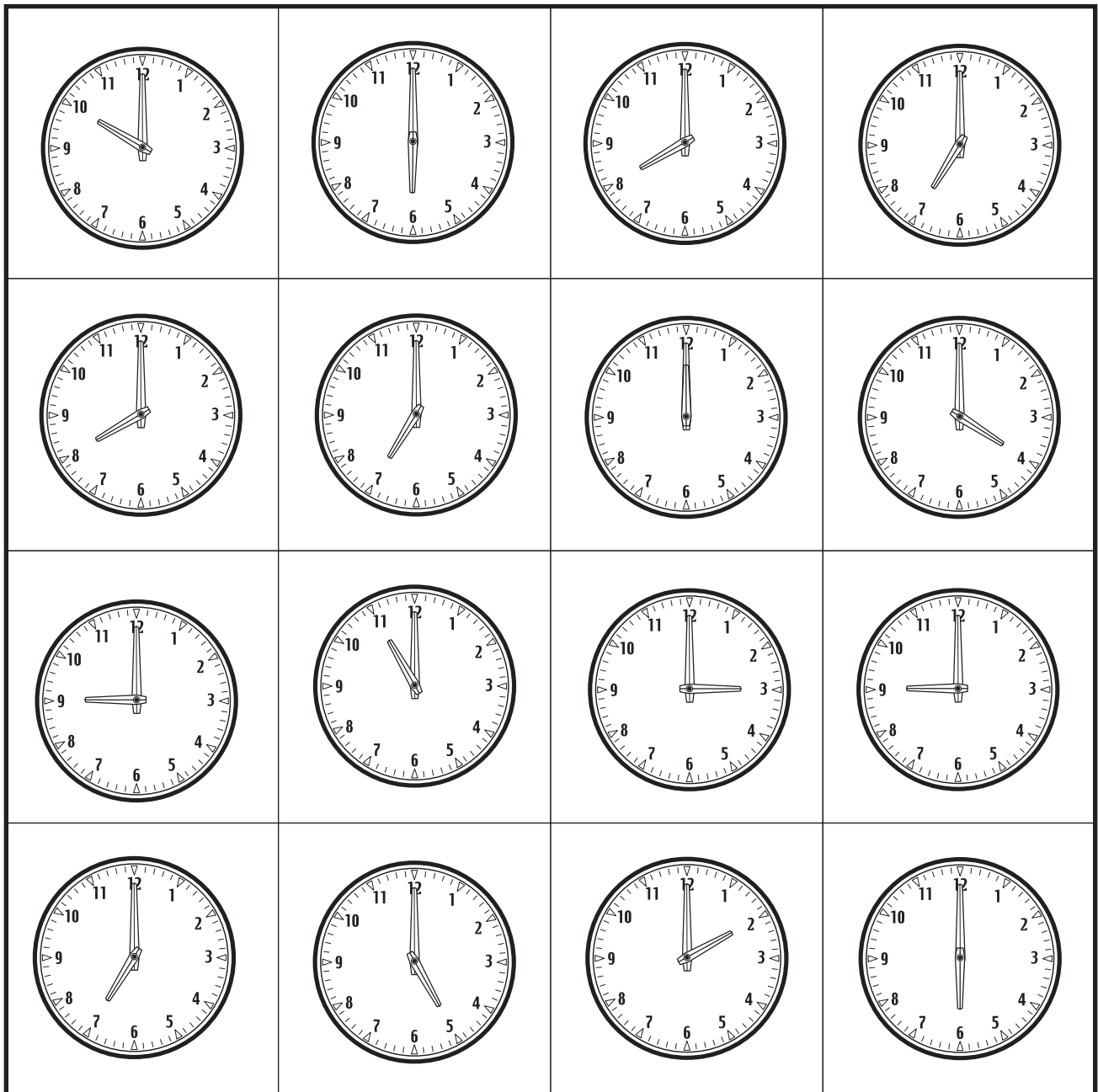

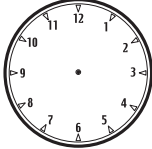
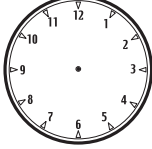
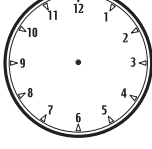
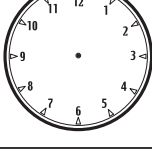
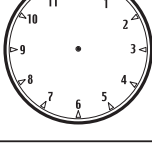
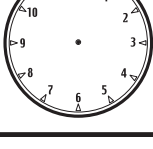


Table Completion – Go Ahead 1 Hour (3:00 PM)

Start Time: 3:00 PM Thursday

- Toss a die. Each dot = an hour. Count the dots to find how many hours to go ahead in time starting at 3:00 PM on Thursday.
- What day and time will it be after 6 tosses?



Die Toss	Each Dot = One Hour	Start Time 	Go Ahead in Time from 3:00 PM	Day of the Week: Thursday
			_____ : _____	
			_____ : _____	
			_____ : _____	
			_____ : _____	
			_____ : _____	
			_____ : _____	

Challenge: Calculate elapsed time. Look at the clock in the bottom row. How many hours have passed since 3:00 PM on Thursday?

It was 3:00 PM Thursday _____ hours ago.

Dime Five Toss

How to Play

- Each team tosses a die.
- Higher number goes first.

- Taking turns, toss a die, take that many dimes, and place them in the box next to the coin toss.
- After 5 tosses, count the amount of money on your chart. Team with the most money wins.



Toss	Dimes
1	
2	
3	
4	
5	

How to Play

- Each team tosses a die.
- Higher number goes first.



Two-Dice Sum Table Completion

- Toss 2 dice. Each dot = 1¢. Count the dots on both dice to find the value of the toss.
- Circle the value on the chart and stack that amount in coins in the box next to the coin value.
- First team to fill every box on their chart wins.



Dice Amount	Show the Coins	Dice Amount	Show the Coins
2¢		8¢	
3¢		9¢	
4¢		10¢	
5¢		11¢	
6¢		12¢	
7¢			

Penny Tic-Tac-Toe

- Each team chooses a color token (tiles, chips, or cubes).
- Toss a die. Higher number goes first.

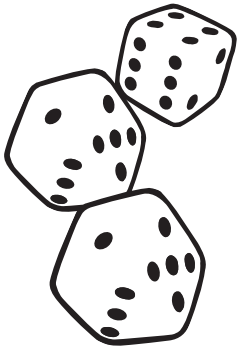


How to Play

- Toss the die and take that many pennies from the coin pile.
- Buy a box or boxes on the Tic-Tac-Toe grid using your pennies, or wait for your next turn to add to your coin amount.
- Place a token on the grid and return that amount to the coin pile.
- First team to get three in a row wins.
- Play 3 games. Team winning 2 out of 3 games is the winner.

\$0.05	\$0.10	\$0.05
\$0.01	\$0.15	\$0.10
\$0.05	\$0.10	\$0.05

Stack & Count – Quarters, Dimes, & Nickels



Dice Card

Quarters	Dimes	Nickels
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	Quarter Stack	Dime Stack	Nickel Stack	Total the Row
Toss 1				
Toss 2				
Toss 3				
Toss 4				
Toss 5				
Total the Columns				