K8 Math Sense
by Angie Seltzer

40 Math Cards with Four Games

Understanding Powers of Ten

$$\frac{1}{10^2}$$

1,000

$10 \times 1,000$

1 thousa...

ELEMENTARY MATH SENSE SERIES

INCLUDES
➤ **Set of 40 Math Cards**
➤ **Recording Worksheet & Answer Key**
➤ **Instructions for Four Games**
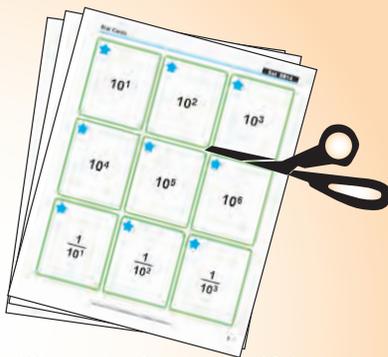
Just Print, Cut, & Play

Visit the *K8 Math Sense* store for dozens of math card sets for developing math sense. Most card sets include additional features such as exit tickets, storage pockets, and variations.

About the Author & Illustrator
Angie Seltzer is a mathematics curriculum specialist who designs and develops time-saving products for teachers. She holds a master's degree in mathematics education from The Ohio State University.

Angie has more than 30 years of professional publishing experience as an editor, writer, and/or designer of math textbooks and supplements including assessments. She also has more than 10 years of math tutoring experience.

PAIRS CHALLENGE

Players 2-6 **Time** 10-20 minutes

Object Find pairs (1 point) or triples (3 points). Earn the most points from matches.

Setup For more than three players, use two decks. For each round, deal 6 cards to each player, face up. Omit wild cards.
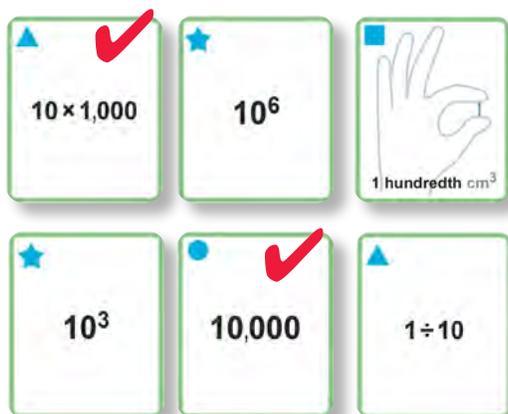
The score for a pair is 1 point.

Instructions In each round, players look at their cards to identify any matching cards based on values only, not suits.

♥ Each matching pair is worth 1 point.

♥ Each set of three matching cards is worth 3 points.

♥ Each set of four matching cards (rare) is worth 6 points.

Players mark down their scores for the round. Then they put all cards from that round into a discard pile.

Continue with more rounds. For two players, there are enough cards to play three rounds without needing to reshuffle the set of cards. After three rounds, the player with the most points wins.
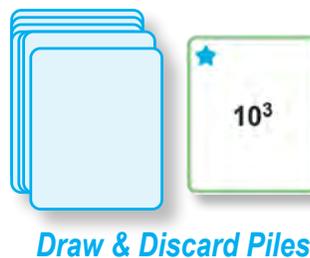
CRAZY MATCH

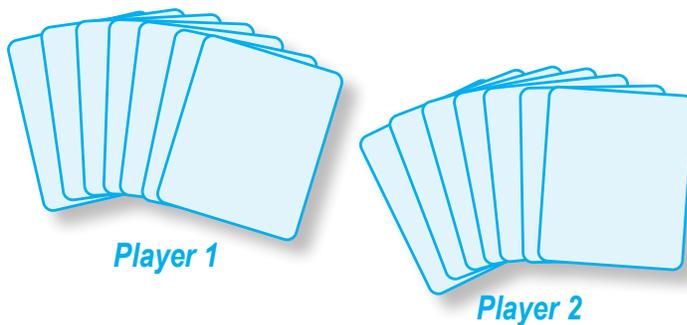This game is similar to *Crazy 8s* or *UNO®*.

Players 2-4

Time 15-30 minutes

Object Be the first to run out of cards.

Setup Shuffle the cards including all four wild cards. Deal seven cards to each player. (Use two identical sets if more than two students are playing.) Turn up one card for the Discard pile. Place the rest in a Draw pile, face down.

Draw & Discard Piles

Player 1

Player 2

Instructions Each player, in turn, chooses a card from his or her hand to match the top card on the Discard pile. The player must match the suit, the value, or play a wild card. When a card is played, the player should state the value or describe the model to give other players a chance to make sure the cards match. If a player has no card to play, he or she must draw two cards from the Draw pile and the turn ends. When a player plays a wild card, the player must name a suit for the next player to match. Play goes on until a player runs out of cards. That player wins.

CONCENTRATION

Players 2-4 **Time:** 15-30 minutes

Object Match the most pairs of cards.

Setup Setup Place the shuffled set of cards face down in an array of six rows of six or nine rows of four. (Omit the wild cards.)
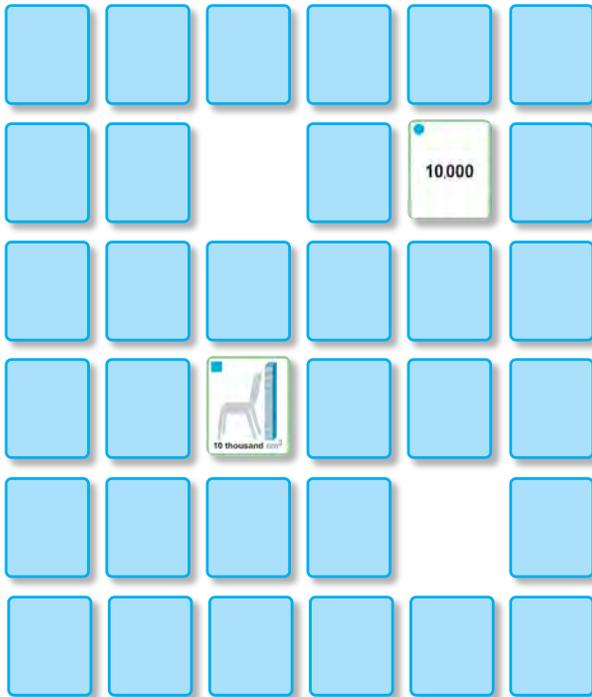
Players who turn up two cards that match can remove them from the array.

Instructions Each player, in turn, turns up two cards, states the value of each card, and decides if the cards match. If the cards match, the player picks up and saves the two cards and the turn ends. If they do not match, the player turns the cards back over. The next player then takes a turn. Two cards of the same suit do NOT count as a match. Play goes on until all cards are picked up. The player with the most pairs wins.
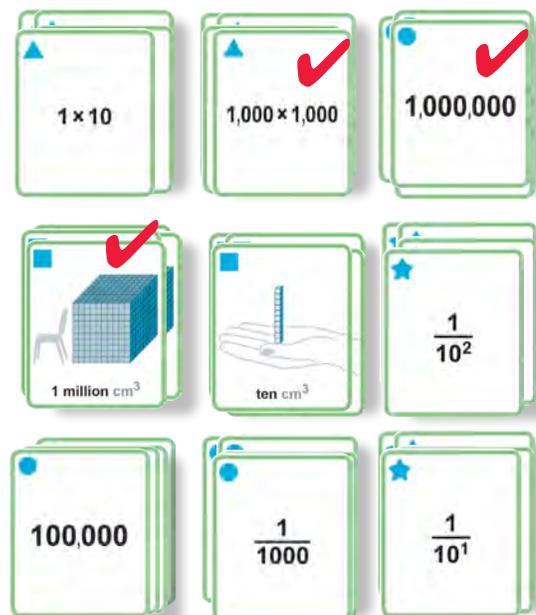
CLEAR THE DECK

Players 1 (with help from an aide or advanced student)

Time 15-30 minutes

Object Pick up two matching cards at a time. Try to remove all cards without getting stuck.

Setup Shuffle the cards and deal 9 piles of cards, face up, 4 per pile. (Omit wild cards.)

This example has three matching cards but only two should be removed. The third card will match another card lower down in a pile.

Instructions The player looks at the nine piles. If two cards match, the player picks up those cards and stacks them to the side. This will reveal two new cards. Now, the player looks again for a matching pair and picks them up. The player continues looking for matching pairs and picking them up. When there are no visible matching pairs, the game is over. But, if the player continues until all stacks have been cleared, the player wins!

Set 5B14

Understanding Powers of Ten

Pairs Challenge

Players: 2-6

Time: 10-20 minutes

Object: Earn the most points from matches.

Setup: Deal six cards to each player. (Wild cards are not needed.)

Instructions: Players look at their cards to see if there are any matching cards. Each matching pair is worth 1 point. A set of three matching cards is worth 3 points. The player with the most points wins. (Some games will end as a tie.) Repeat the game several times.

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Crazy Match

This game is similar to *Crazy 8s* or *UNO*.

Players: 2-4 (Use a double set if there are 3-4 players.)   **Time:** 15-30 minutes

Object: Be the first to run out of cards.

Setup: Deal 7 cards per player. Turn up a card for the Discard pile. Place the rest in a Draw pile.

Instructions: Players take turns matching a card from their hand to the top card on the Discard pile. They can match the number, suit, or play a wild card. If a player has no card to play, he or she must draw two cards from the Draw pile and the turn ends. When a player plays a wild card, the player must name a suit for the next player to match. Play goes on until a player runs out of cards. That player wins.

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Wild

Concentration

Players: 2-4   **Time:** 15-30 minutes

Object: Match the most pairs of cards.

Setup: Place the set of cards (except wild cards) face down in a 6-by-6 array.

Instructions: Each player, in turn, turns up two cards, states the value of each card, and decides if the cards match. If the cards match, the player picks up and saves the two cards and the turn ends. If they do not match, the player turns the cards back over. The next player then takes a turn. Play goes on until all cards are picked up. The player with the most pairs wins.

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Clear the Deck

Players: 1

Time: 15- 30 minutes

Object: Pick up all of the cards.

Setup: Deal nine piles of cards, face up, four per pile. (Omit wild cards.)

Instructions: The player looks at the nine piles, picks up two cards that match, and stacks them to the side. The player continues to look for and pick up pairs. When there are no visible matching pairs, the game is over. If the player clears all cards without getting stuck, the player wins! As a variation, player can spread cards into empty spaces and continue until all cards have been cleared.

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Wild

Wild

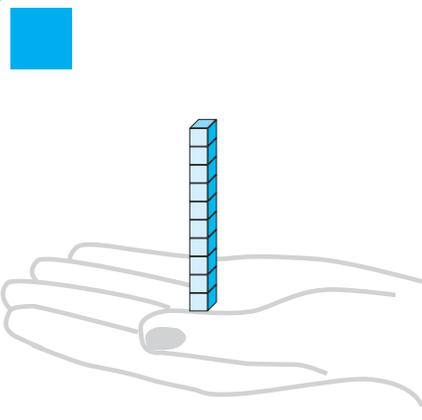**Wild**

10^1

10^2

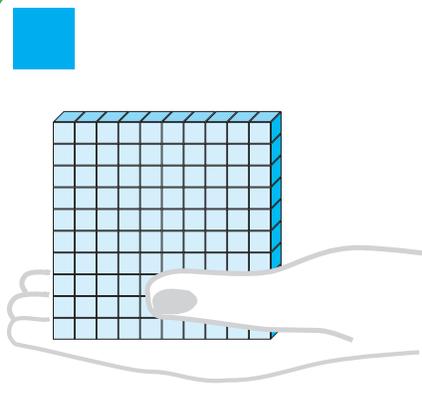10^3

10^4

10^5

10^6

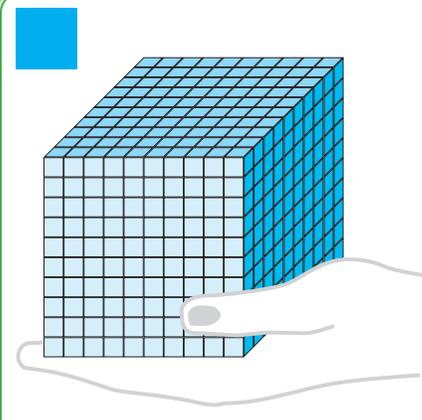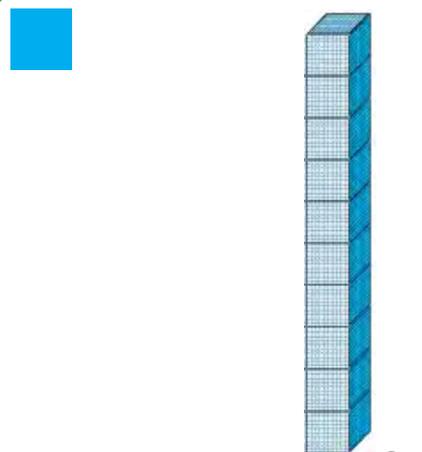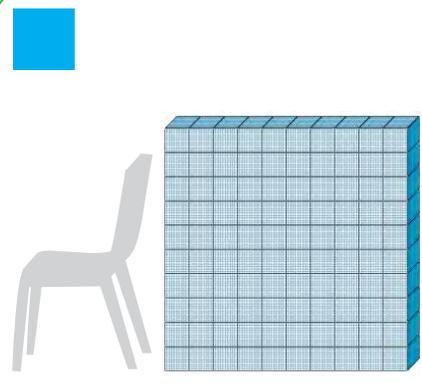$$\frac{1}{10^1}$$

$$\frac{1}{10^2}$$
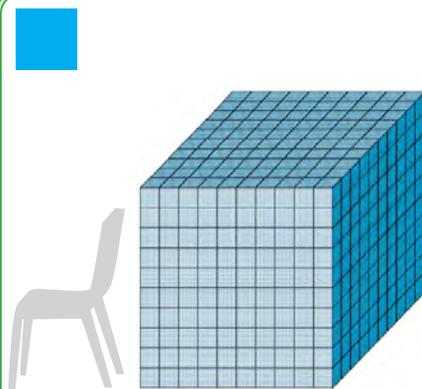
$$\frac{1}{10^3}$$

ten cm^3

1 hundred cm^3

1 thousand cm^3

10 thousand cm^3

100 thousand cm^3

1 million cm^3
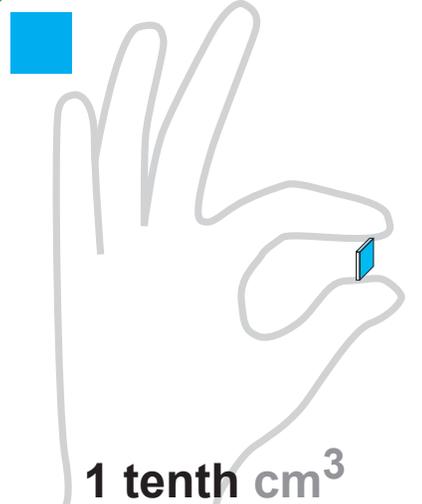
1 tenth cm^3
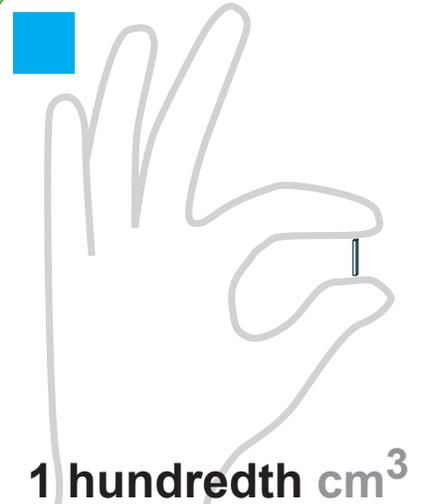
1 hundredth cm^3
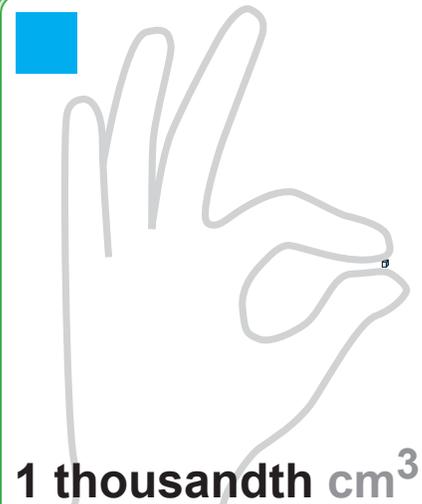
1 thousandth cm^3

10	100	1,000
10,000	100,000	1,000,000
$\dfrac{1}{10}$	$\dfrac{1}{100}$	$\dfrac{1}{1000}$

▲ **1 × 10**	▲ **10 × 10**	▲ **10 × 100**
▲ **10 × 1,000**	▲ **100 × 1,000**	▲ **1,000 × 1,000**
▲ **1 ÷ 10**	▲ **1 ÷ 100**	▲ **1 ÷ 1,000**

Understanding Powers of Ten

Name_____

Date_____

Instructions: Write the number in standard form, as a product or quotient, and as a power of ten.

Sample:	**1** ten	**2** 1 hundred
100 thousand		
_____100,000_____	_____	_____
_____100 × 1,000_____	_____	_____
_____10^5_____	_____	_____
1 thousand	**10 thousand**	**1 million**
_____	_____	_____
_____	_____	_____
_____	_____	_____
1 tenth	**1 hundredth**	**1 thousandth**
_____	_____	_____
_____	_____	_____

Understanding Powers of Ten

Instructions: Write the number in standard form, as a product or quotient, and as a power of ten.

Sample:	**1** ten	**2** 1 hundred
100 thousand		
100,000	10	100
100 × 1,000	1 × 10	10 × 10
10^5	10^1	10^2
1 thousand	**10 thousand**	**1 million**
1,000	10,000	1,000,000
10 × 100	10 × 1,000	1,000 × 1,000
10^3	10^4	10^6
1 tenth	**1 hundredth**	**1 thousandth**
$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
1 ÷ 10	1 ÷ 100	1 ÷ 1,000
$\frac{1}{10^1}$	$\frac{1}{10^2}$	$\frac{1}{10^3}$