

## Thinkwell's Placement Test 1 Answer Key

*If you answered 5 or more Test 1 questions correctly, we recommend Thinkwell's Homeschool 6<sup>th</sup> Grade Math.*

### 1. Answer: Jacob

#### Explanation

To determine who drove the greatest number of miles, compare the numbers 709 and 687. Since the numbers have the same number of digits, compare the largest place value. In this case the largest place value is the hundreds place. The hundreds digit in 709 is 7. The hundreds digit in 687 is 6. Since 7 is greater than 6, 709 is greater than 687. Therefore, Jacob drove more miles than Mike drove.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Comparing and Ordering Whole Numbers."*

### 2. Answer: Waterville

#### Explanation

Compare 98,987 and 98,928. Each number has the same number of digits, so compare the digits in the largest place-value position. The largest place-value position in each number is the ten-thousands place. However, the ten-thousands-place digit is 9 in both numbers. Therefore, move to the right until a place-value position with uncommon digits is located. The thousands-place digit and the hundreds-place digit are the same in both numbers, but the tens-place digit is different. The tens-place digit in 98,987 is 8 and the tens-place digit in 98,928 is 2. Since 8 is greater than 2, 98,987 is greater than 98,928. Thus, Waterville has more gallons of water.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Comparing and Ordering Whole Numbers."*

### 3. Answer: 7,998; 9,287; 10,232

#### Explanation

The numbers with 4 digits must be less than the number with 5 digits. Thus 10,232 is the greatest number. 7,998 and 9,287 have the same number of digits so compare the digit in the largest place-value position, the thousands place. The thousands-place digit in 7,998 is 7 and the thousands-place digit in 9,287 is 9. Since 7 is less than 9, 7,998 is less than 9,287. Therefore, the digits ordered from least to greatest must be 7,998; 9,287; 10,232.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Comparing and Ordering Whole Numbers."*

### 4. Answer: A. $248 < 382$

#### Explanation

The inequality symbol  $<$  means "less than." Thus, the statement may be read "248 is less than 382." To determine if 248 is less than 382, compare the digits in the largest place value. The largest place value is the hundreds place in each number. In 248, the hundreds-place digit is 2 and in 382, the hundreds-place digit is 3. Since 2 is less than 3, 248 is less than 382. Therefore,  $248 < 382$  is a true statement.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Comparing and Ordering Whole Numbers."*

**5. Answer: A. 37**

Explanation

The inequality symbol  $>$  means "greater than." To make the statement  $40 > \underline{\quad}$  true, 40 must be greater than the chosen number. To compare 40 and 37, compare the tens digit since the numbers have the same number of digits. The tens digit in 40 is 4 and the tens digit in 37 is 3. Since 4 is more than 3, 40 is greater than 37. Thus, the statement  $40 > 37$  is true.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Comparing and Ordering Whole Numbers."*

**6. Answer: 310**

Explanation

Round the subtrahend and the minuend to the nearest ten.  $834 \approx 830$  and  $521 \approx 520$   
Subtract the rounded numbers.  $830 - 520 = 310$

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Estimating with Whole Numbers."*

**7. Answer: 1,200 miles**

Explanation

Find the number of days that Max will drive.  $4 \text{ weeks} = 4 \times 7 = 28 \text{ days}$   
Max will drive 42 miles each day for 28 days. To find the total number of miles that Max will drive, multiply the number of miles per day by the number of days.  $42 \times 28$   
Round each number to the nearest ten.  $42 \approx 40$  and  $28 \approx 30$   
Find the product.  $40 \times 30 = 1,200$   
Max will drive approximately 1,200 miles in 4 weeks.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Estimating with Whole Numbers."*

**8. Answer: There are a total of 82 trips.**

Explanation

Add the numbers given in the 2<sup>nd</sup> column, titled "Number of Trips."  $4 + 6 + 29 + 5 + 25 + 13 = 82$

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Choose the Method of Computation."*

**9. Answer: 25, 30**

Explanation

The first four numbers in the sequence follow the pattern "each term is 5 greater than the previous term" or "counting by fives." Therefore, the term after 20 will be 5 greater than 20, or 25. And, the term after 25 will be 5 greater than 25, or 30.

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Patterns and Sequences."*

**10. Answer: 18 + 20**

Explanation

The word "sum" indicates that the operation is addition. So, write the numbers 18 and 20 with addition as an expression.  $18 + 20$

*This concept is covered in Thinkwell's 6<sup>th</sup> Grade Math Chapter 1 topic "Translate Between Words and Math."*

### Guidelines for Interpreting Placement Test Scores

Placement Test	Number of Correct Answers	Recommendation
Placement Test 1	5 or more	<a href="#">Thinkwell's 6<sup>th</sup> Grade Math</a>
Placement Test 2	6 or less	<a href="#">Thinkwell's 6<sup>th</sup> Grade Math</a>
	7 or more	<a href="#">Thinkwell's 7<sup>th</sup> Grade Math</a>
Placement Test 3	4 or less	<i>complete Placement Test 2</i>
	5 or 6	<a href="#">Thinkwell's 7<sup>th</sup> Grade Math</a>
	7 or more	<a href="#">Thinkwell's 8<sup>th</sup> Grade Math</a>
Placement Test 4	4 or less	<i>complete Placement Test 3</i>
	5 or 6	<a href="#">Thinkwell's 8<sup>th</sup> Grade Math</a>
	7 or more	<a href="#">Thinkwell's Intermediate Algebra (Algebra 1)</a>
Placement Test 5	4 or less	<i>complete Placement Test 4</i>
	5 or 6	<a href="#">Thinkwell's Intermediate Algebra (Algebra 1)</a>
	7 or more	<a href="#">Thinkwell's College Algebra (Algebra 2)</a>
Placement Test 6	4 or less	<i>complete Placement Test 5</i>
	5 or 6	<a href="#">Thinkwell's College Algebra (Algebra 2)</a>
	7 or more	<a href="#">Thinkwell's Precalculus</a>
Placement Test 7	4 or less	<i>complete Placement Test 6</i>
	5 or 6	<a href="#">Thinkwell's Precalculus</a>
	7 or more	<a href="#">Thinkwell's Calculus</a>