Readiness Evaluations (1–6) – Introduction

Math Lessons for a Living Education approaches the study of mathematics in a singularly unique fashion; therefore, these placement tests need to be administered in a way that will correctly show you, as the teacher, the best starting point for each student. Because this math course is based upon the belief that a child must own their learning journey for it to be true education, these placement tests are meant to show you what necessary concepts the child has internalized to the point of owning them.

Let me explain what this will look like...

Let's say that a mother needs to place her 8-year-old son in the MLFLE series. She believes, by looking at the concepts covered on the Book 2 placement test, that he has learned most of it. She believes that Book 2 will be too easy for him, but is concerned that Book 3 may be too hard, because there are one or two topics where he is still shaky. What is she to do?

Here is the answer to this situation and others similar to it: The mother should print out the placement test for Book 2, and sit down with her son. She is to explain carefully, that this is a tool to help her know exactly what he has mastered. She is to supply manipulatives for him to use when needed. She is to explain to her son that he is not to just think and write the answer to the problems, he is to SHOW or TELL her what he is doing and why he is doing it.

For example, if he has not grasped the "why" in the connection and relationship between addition and subtraction, it will be obvious to her. If by the end of the placement test for Book 2, her original thoughts about Book 2 being too easy are confirmed, she will confidently purchase Book 3 for her son and work on the one or two concepts from Book 2 where he is shaky. If she realizes that their former math curriculum taught her son how to fill in blanks and get the right answer without truly understanding, she will confidently purchase Book 2 and work through the concepts until he has truly owned them and can explain them with confidence and ease.

It is important to remember that these are not timed tests. Please take as long as you need to, in order to allow your child time to think.

Book 1 Readiness Evaluation

This is a checklist to assess your student's ability to be successful in *Math Lessons for a Living Education Book 1*. Your student should be able to accomplish all the activities in this list to be successful in Book 1.

☐   know left from right

☐   draw a straight line

☐   trace a looping line

☐   write name, holding pencil correctly

☐   use scissors correctly to cut lines at the bottom of this page

☐   know colors (blue, red, yellow, orange, purple, green, brown, black, white)

☐   follow directions successfully (i.e. play Mother May I, giving 2-step instructions)

Book 2 Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 2*. Please discuss any missed problems with the student in order to understand the reason that he or she missed them. Please use discretion on whether to place the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Part one: (The student should make no more than 2 mistakes on each of these sections.)

Section 1: Teacher instruct your student to write the numbers 0-100 on the following lines.

Part 2: Teacher, instruct your student to underline every number on the previous page that is in the ones place with a red crayon/pencil, every number in the tens place with a green crayon/pencil, every number in the hundreds place with a blue crayon/pencil.

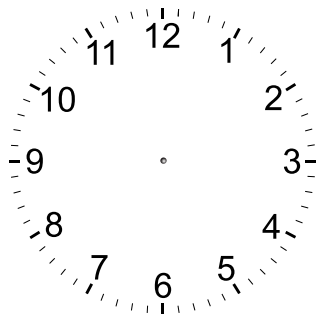Orally, have your student answer these questions.

☐ In the number 236, what does 6 stand for?
a) six groups of ten
b) six groups of one
c) six groups of one hundred

☐ In the number 236, what does 3 stand for?
a) three groups of ten
b) three groups of one
c) three groups of one hundred

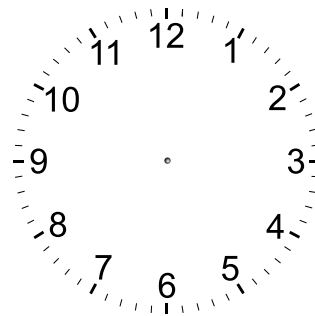☐ In the number 236, what does 2 stand for?
a) two groups of ten
b) two groups of one
c) two groups of one hundred

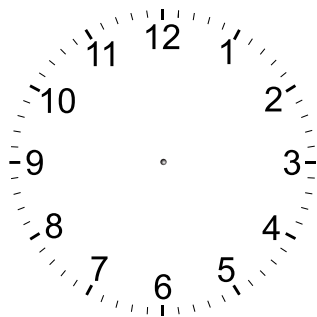**Section two:** (The student should make no more than 1 mistake on each of these points.)

Point 1: Teacher have your student draw hands on these clocks to show the correct time.
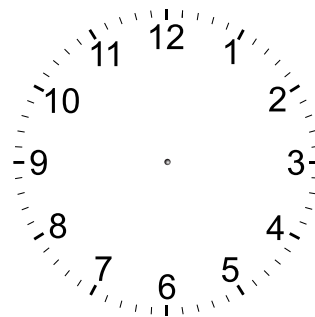
3:00

9:00

11:00

7:00

Point 2: Teacher have your student answer these. They should do these from memory; watch them carefully and take note of the ones they have to think or count to answer. (This is about seeing if your student understands the concept of addition - if they can answer from memory, this is a plus, but not absolutely necessary.)

$2 + 8 =$ $4 + 2 =$ $4 + 5 =$

$3 + 2 =$ $9 + 1 =$ $4 + 4 =$

$6 + 3 =$ $2 + 3 =$ $8 + 2 =$

Point 3: Teacher have your student answer these quickly. They should do these from memory; watch them carefully and take note of the ones they have to think or count to answer. (This is about seeing if your student understands the concept of subtraction - if they can answer from memory, this is a plus, but not absolutely necessary.)

$10 - 2 =$ $8 - 3 =$ $6 - 2 =$

$9 - 7 =$ $10 - 5 =$ $9 - 5 =$

$10 - 8 =$ $7 - 4 =$ $6 - 5 =$

Section three: (The student should make no more than 1 mistake on each of this point.)
Teacher have your student narrate to you the relationship between addition and subtraction. Do not help or coach your student at all. It extremely important that they understand the relationship between these two operations. If your student has done well on the other parts of this placement test, but does not understand this concept of relationship, please take a few minutes to use manipulatives to show them with the hands-on/visual/ auditory approach. If they are not understanding this concept easily and are not able to narrate back to you as they show you with the manipulatives, they are not ready for Book 2.

Book **3** Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 3*. Please discuss any missed problems with the student in order to understand the reason that student missed them. Please use discretion in placing the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section one: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Fill in the chart correctly.

	Thousands	Hundreds	Tens	Ones
6,011				
792				
4,009				
8,178				
2,060				

Point 2: Look at the numbers in the chart above. Color each even number, green. Color each odd number, blue.
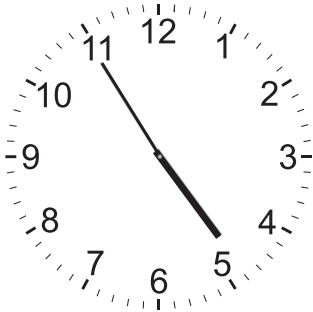
Point 3: What numbers do odd numbers end in? _____

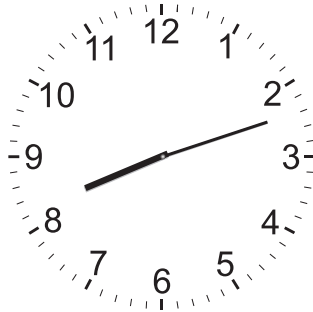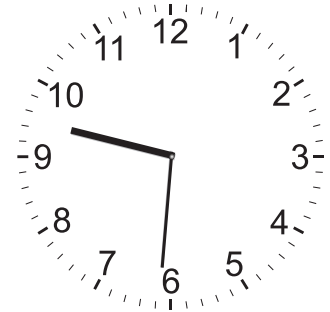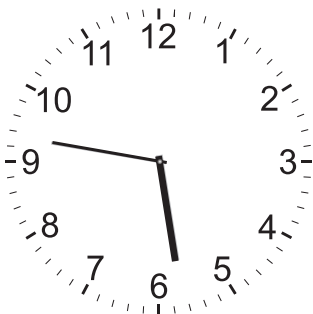What numbers do even numbers end in? _____

Section two: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Write the correct time shown on each clock.

_____   _____   _____

_____   _____

Point 2: Count the money and write the correct amount.

_____   _____

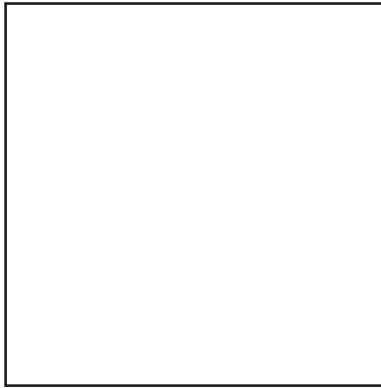_____   _____

Point 3: Find the perimeter of each shape.

a square with 2 inch sides

a rectangle with 1 inch width and 3 inch length

_____   _____

Point 4: Add and subtract.

```
   28          41         344         872         498
   12          99       – 217       – 653       – 269
   32          38
 + 50        + 61
```

Point 4: Measure these lines. Write the length.

☆ ――――――――――――――――――――――――

☆ ――――――――――――――――

☆ ――――――――――――――――――――――――――

Book 4 Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 4*. Please discuss any missed problems with the student in order to understand the reason that student missed them. Please use discretion in placing the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section one: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Add and Subtract.

$$
\begin{array}{r} 4,561 \\ 5,198 \\ +\ 3,210 \\ \hline \end{array}
\qquad
\begin{array}{r} 3,290 \\ +\ 9,229 \\ \hline \end{array}
\qquad
\begin{array}{r} 823,197 \\ +\ 29,510 \\ \hline \end{array}
\qquad
\begin{array}{r} 329,528 \\ -\ 32,999 \\ \hline \end{array}
\qquad
\begin{array}{r} 56,291 \\ -\ 13,897 \\ \hline \end{array}
$$

Point 2: Round these numbers to the nearest 10.

23

891

466

138

Round these numbers to the nearest 100.

189

2,345

982

312

Round these numbers to the nearest 1,000.

3,780

12,428

9,621
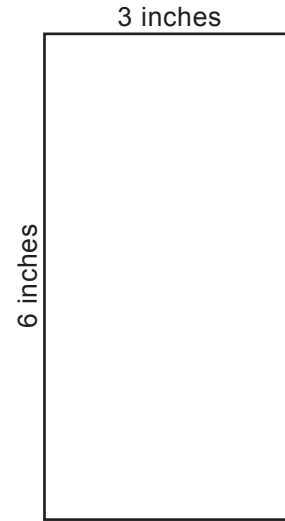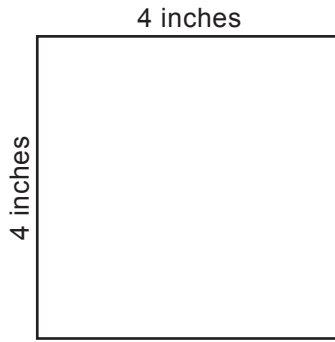
13,289

Point 3: Complete this multiplication chart.

x	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Point 4: Narrate to your teacher the relationship between multiplication and division. Use manipulatives to demonstrate your understanding.
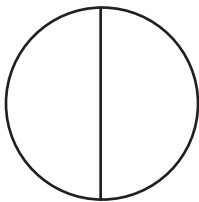(Note to the teacher: this point is a make or break. If your student does not understand multiplication and division well enough to confidently and clearly narrate to you the relationship between multiplication and division, seriously consider placing them in the previous book in this series.)

Section two: (The student should make no more than 2 mistakes on each of these points.)
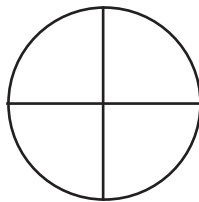
Point 1: Find the area. Write the equations for each one.

2 inches

2 inches

4 inches

4 inches

3 inches

6 inches

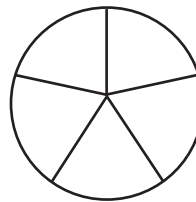_____   _____   _____

Point 2: Correctly divide and color each circle to show the fraction written under each one.

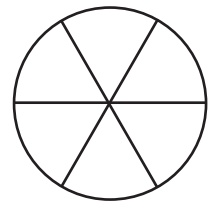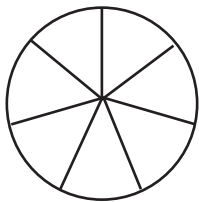$\dfrac{1}{2}$ $\dfrac{3}{4}$ $\dfrac{2}{5}$ $\dfrac{5}{6}$
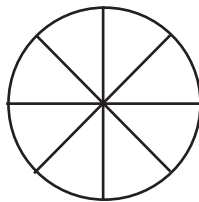
$\dfrac{4}{7}$ $\dfrac{3}{8}$ $\dfrac{1}{3}$

Point 3: Solve these word problems.

There were 32 tulips at the flower stand. If 4 ladies bought an equal number of the tulips, how many tulips did they each buy?

The family drove 126 miles before lunch. After lunch, they drove 253. How many more miles did they drive in the afternoon than in the morning? How many miles did they drive in the morning and the afternoon together?

Point 4: Solve these problems.

Circle groups of 3. $\frac{1}{6}$ of 18 =   6 x _____ = 18

Circle groups of 5. $\frac{1}{2}$ of 10 =   2 x ____ = 10

Circle groups of 4. $\frac{1}{3}$ of 12 =   3 x _____ = 12

Point 5: Write the Roman Numeral for each number.

I _____

5 _____

10 _____

50 _____

100 _____

1,000 _____

Book 5 Readiness Evaluation

This is a placement test to assess a student's ability to be successful in Math Lessons for a Living Education Book 5. Please discuss any missed problems with the student in order to understand the reason that student missed them. Please use discretion in placing the student in this level of math. Please do not place an un-prepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section one: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Add and Subtract.

$$
\begin{array}{r}
289,591 \\
429,398 \\
+\ 129,510 \\
\end{array}
\qquad
\begin{array}{r}
87,109,792 \\
+\ 1,349,029 \\
\end{array}
\qquad
\begin{array}{r}
890,573 \\
+\ 449,977 \\
\end{array}
$$

$$
\begin{array}{r}
23,369,219 \\
-\ \ \ \ 57,259 \\
\end{array}
\qquad
\begin{array}{r}
566,773 \\
-\ 233,783 \\
\end{array}
$$

Point 2: Multiply

$$
\begin{array}{r}
45 \\
\times\ 33 \\
\end{array}
\qquad
\begin{array}{r}
85 \\
\times\ 41 \\
\end{array}
\qquad
\begin{array}{r}
93 \\
\times\ 55 \\
\end{array}
\qquad
\begin{array}{r}
72 \\
\times\ 29 \\
\end{array}
\qquad
\begin{array}{r}
25 \\
\times\ 12 \\
\end{array}
$$

Divide.

$$4\overline{)9} \qquad 3\overline{)8} \qquad 5\overline{)6}$$

Point 3: Word Problems

The toy shop had 2,872 boomerangs in stock for the Christmas sale. After the sale, there were 1,988 boomerangs still in stock. The store decided to place half of the boomerangs on the clearance shelves, and donate the other half to a missions organization. How many boomerangs were donated to the missions organization? When the boomerangs were delivered to the missions organization, they were equally packaged in two large boxes. How many were in each box? When the workers at the organization opened one of the boxes, they found that a dozen boomerangs had been damaged in the shipment. How many boomerangs were undamaged in that box?

Point 4: Add and subtract these fractions.

$$\frac{3}{7} + \frac{2}{7} =$$ $$2\frac{2}{5} + 1\frac{1}{5} =$$ $$3\frac{5}{9} + 2\frac{1}{9} =$$

$$\frac{3}{11} + \frac{6}{11} =$$ $$6\frac{2}{3} - 4\frac{1}{3} =$$ $$\frac{5}{12} - \frac{4}{12} =$$

$$\frac{8}{13} - \frac{5}{13} =$$ $$11\frac{9}{10} - 8\frac{3}{10} =$$

Section two: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Multiply top and bottom of each these fractions by 3 to find equivalent fractions.

$$\frac{2}{5} = \underline{\qquad}$$ $$\frac{1}{3} = \underline{\qquad}$$ $$\frac{5}{8} = \underline{\qquad}$$ $$\frac{4}{7} = \underline{\qquad}$$

Point 2: Find equivalent fractions by dividing each fraction by 4.

$$\frac{4}{12} = \underline{\qquad}$$ $$\frac{32}{40} = \underline{\qquad}$$ $$\frac{20}{28} = \underline{\qquad}$$

$$\frac{40}{48} = \underline{\qquad}$$ $$\frac{12}{36} = \underline{\qquad}$$ $$\frac{16}{24} = \underline{\qquad}$$

Point 3: Multiply

x	0	1	2	3	4	5	6	7	8	9	10	11	12
0													
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Book **6** Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 6*. The student must show the process of at least one of each type of problem, explaining it orally as they go. Please discuss any missed problems with the student in order to understand the reason he or she missed them. Please use discretion in placing the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section One: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Addition and Subtraction

1.
$$\begin{array}{r} 285,230 \\ +\ \ 199,967 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 19,002 \\ +\ \ 7,139 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 800,045 \\ -\ \ 697,999 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 10,000 \\ -\ \ 2,999 \\ \hline \end{array}$$

Point 2: Multiplication and Division

5.
$$\begin{array}{r} 412,678 \\ \times\ \ \ \ \ 3,312 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 812 \\ \times\ \ \ 88 \\ \hline \end{array}$$

7. $2\ 7\ \overline{)\ 5\ \ 6\ ,\ 7\ \ 8\ \ 1}$

8. $1\ 1\ 5\ \overline{)\ 2\ \ 3\ \ 0\ ,\ 5\ \ 4\ \ 2}$

Section Two: (The student should make no more than 2 mistakes on each of these points.)

Point 3: Story problem. Explain and show your teacher every step of this story problem.

9. A road trip is 2,540 miles long. One quarter of those miles were through mountainous terrain. Explain to your teacher how you would go about finding the number of miles that are through mountainous terrain. Write that number here:

    If you drove those miles through mountainous terrain at an average speed of 45 miles per hour, how many hours would it take you to drive through the mountainous terrain (explain and write your answer here).

Point 4: Place Value

Circle the digits.

10. In the ten's place: 317,002   299   512   899,982

11. In the ten-thousand's place: 23,009,167   56,451   173,900

12. In the million's place: 431,229,501   99,223,147   10,000,332

13. a.   Now tell your teacher what each of the circled digits stand for.
    b.   Read the numbers to your teacher.

Section Three: (The student should make no more than 2 mistakes on each of these points.)

Point 5: Fractions and Mixed Numbers (Watch those denominators!) Explain and show.

$$\begin{array}{r} \frac{1}{2} \\ + \quad \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 6\frac{3}{5} \\ - \quad 2\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 7\frac{6}{14} \\ - \quad 5\frac{2}{7} \\ \hline \end{array}$$

14.   15.   16.
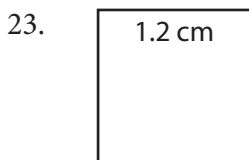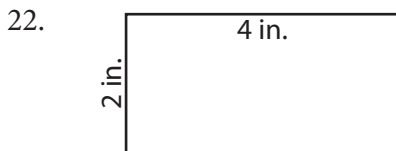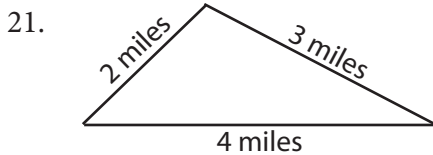
Point 6:
Circle the decimal or percent that matches the fraction. Explain and show your teacher as you solve each problem.

17. $\frac{1}{2}$:   40% and 0.4   20% and 0.2   50% and 0.5

18. $\frac{3}{4}$:   34% and 3.4   43% and 4.3   75% and 0.75

19. $\frac{1}{4}$:   22% and 0.22   25% and 0.25   14% and 0.14

20. $\frac{1}{5}$:   15% and 0.15   20% and 0.2   51% and 0.51

Section Four: (The student should make no more than 2 mistakes on each of these points.)

Point 7: Geometry

Find the perimeter of each shape.

21.

2 miles   3 miles
4 miles

22.

4 in.
2 in.

23.

1.2 cm

24. Find the area of the rectangle in problem 22.

25. Explain the difference between the perimeter and the area of a shape.

Book **1** Readiness Evaluation

This is a checklist to assess your student's ability to be successful in *Math Lessons for a Living Education Book 1.* Your student should be able to accomplish all the activities in this list to be successful in Book 1.

☐   know left from right

☐   draw a straight line

☐   trace a looping line

☐   write name, holding pencil correctly

☐   use scissors correctly to cut lines at the bottom of this page

☐   know colors (blue, red, yellow, orange, purple, green, brown, black, white)

☐   follow directions successfully (i.e. play Mother May I, giving 2-step instructions)

Book 2 Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 2*. Please discuss any missed problems with the student in order to understand the reason that he or she missed them. Please use discretion on whether to place the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

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Section 1: Teacher instruct your student to write the numbers 0-100 on the following lines.

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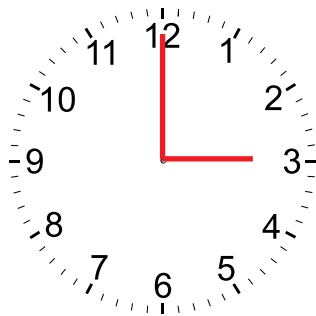Orally, have your student answer these questions.

☐   In the number 236, what does 6 stand for? (b)
a) six groups of ten
b) six groups of one
c) six groups of one hundred

☐   In the number 236, what does 3 stand for?   (a)
a) three groups of ten
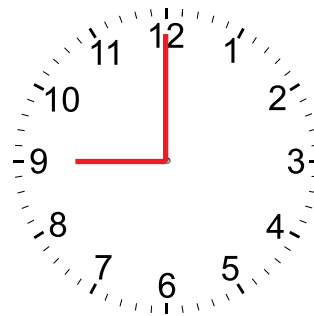b) three groups of one
c) three groups of one hundred

☐   In the number 236, what does 2 stand for? (c)
a) two groups of ten
b) two groups of one
c) two groups of one hundred

Section two: (The student should make no more than 1 mistake on each of these points.)
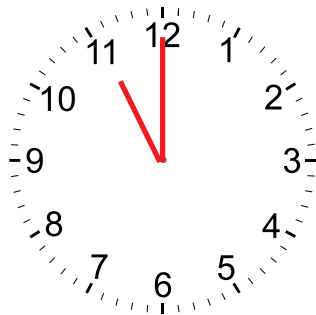
Point 1: Teacher have your student draw hands on these clocks to show the correct time.
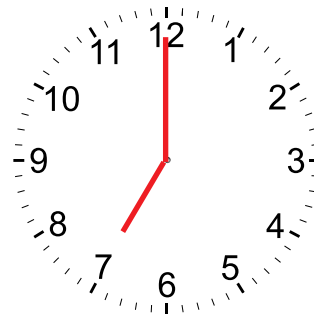

3:00

9:00

11:00

7:00

Point 2: Teacher have your student answer these. They should do these from memory; watch them carefully and take note of the ones they have to think or count to answer. (This is about seeing if your student understands the concept of addition - if they can answer from memory, this is a plus, but not absolutely necessary.)

$2 + 8 = 10$ $4 + 2 = 6$ $4 + 5 = 9$

$3 + 2 = 5$ $9 + 1 = 10$ $4 + 4 = 8$

$6 + 3 = 9$ $2 + 3 = 5$ $8 + 2 = 10$

Point 3: Teacher have your student answer these quickly. They should do these from memory; watch them carefully and take note of the ones they have to think or count to answer. (This is about seeing if your student understands the concept of subtraction - if they can answer from memory, this is a plus, but not absolutely necessary.)

$10 - 2 = 8$ $8 - 3 = 5$ $6 - 2 = 4$

$9 - 7 = 2$ $10 - 5 = 5$ $9 - 5 = 4$

$10 - 8 = 2$ $7 - 4 = 3$ $6 - 5 = 1$

Section three: (The student should make no more than 1 mistake on each of this point.)
Teacher have your student narrate to you the relationship between addition and subtraction. Do not help or coach your student at all. It extremely important that they understand the relationship between these two operations. If your student has done well on the other parts of this placement test, but does not understand this concept of relationship, please take a few minutes to use manipulatives to show them with the hands-on/visual/auditory approach. If they are not understanding this concept easily and are not able to narrate back to you as they show you with the manipulatives, they are not ready for Book 2.

Book 3 Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 3*. Please discuss any missed problems with the student in order to understand the reason that student missed them. Please use discretion in placing the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section one: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Fill in the chart correctly.

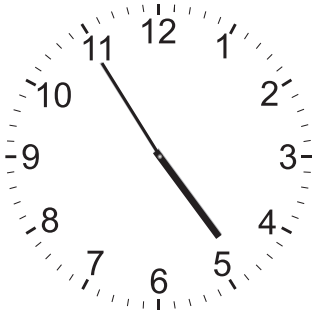|	Thousands	Hundreds	Tens	Ones
6,011	6	0	1	1
792		7	9	2
4,009	4	0	0	9
8,178	8	1	7	8
2,060	2	0	6	0

Point 2: Look at the numbers in the chart above. Color each even number, green. Color each odd number, blue.

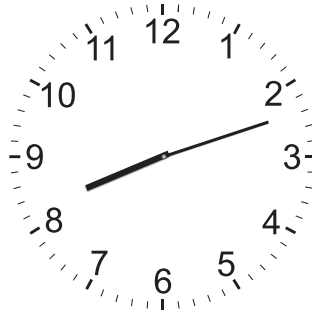**Point 3:** What numbers do odd numbers end in? <u>1, 3, 5, 7, 9</u>

What numbers do even numbers end in? <u>2, 4, 6, 8, 0</u>

Section two: (The student should make no more than 2 mistakes on each of these points.)
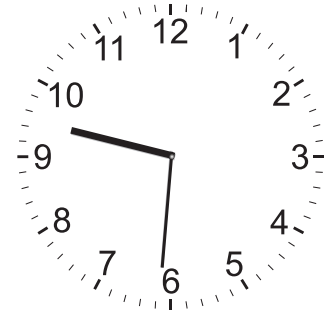
Point 1: Write the correct time shown on each clock.
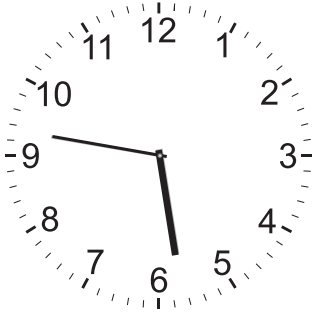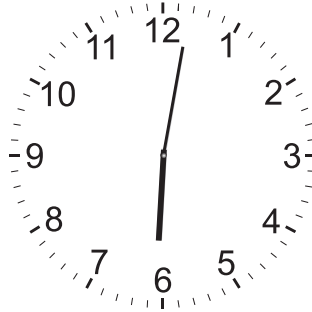

4:55

8:12

9:31

5:47

6:02

Point 2: Count the money and write the correct amount.
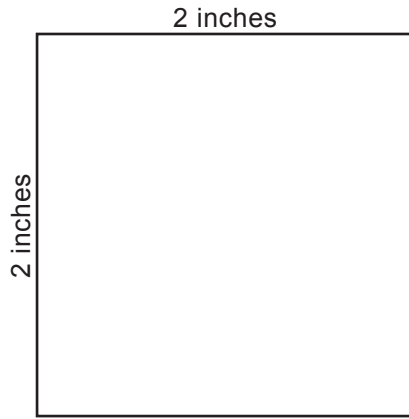

$4.20

$10.03

$12.65

$101.99

Point 3: Find the perimeter of each shape.

2 inches

2 inches

1 inch

3 inches

$2 + 2 + 2 + 2 = 8$ inches $3 + 1 + 3 + 1 = 8$ inches

Point 4: Add and subtract.

```
 1           1          3 1         6 1          8 1
 28          41         344         872          498
 12          99       - 217       - 653        - 269
 32          38         127         219          229
+ 50        + 61
 122         239
```

Point 4: Measure these lines. Write the length.

☆————————————————————   3 inches

☆——————————————   2 inches

☆——————————————————————   5 inches

Book **4** Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 4*. Please discuss any missed problems with the student in order to understand the reason that student missed them. Please use discretion in placing the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section one: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Add and Subtract.

```
    ¹              ¹            ¹  ¹        ²  ⁸¹⁴¹¹         ⁵ ¹¹¹⁸
   4,561         3,290       823,197     329,528        56,291
   5,198       + 9,229     + 29,510    - 32,999       - 13,897
 + 3,210        12,519       852,707     296,529        42,394
  12,969
```

Point 2: Round these numbers to the nearest 10.

23	20
891	890
466	470
138	140

Round these numbers to the nearest 100.

189	200
2,345	2,300
982	1,000
312	300

Round these numbers to the nearest 1,000.

3,780	4,000
12,428	12,000
9,621	10,000
13,289	13,000

Point 3: Complete this multiplication chart.

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Point 4: Narrate to your teacher the relationship between multiplication and division. Use manipulatives to demonstrate your understanding.
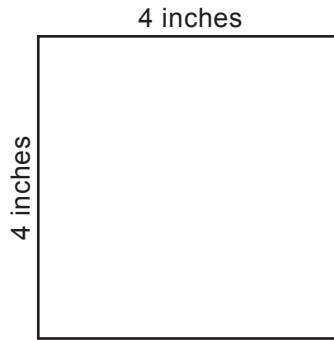(Note to the teacher: this point is a make or break. If your student does not understand multiplication and division well enough to confidently and clearly narrate to you the relationship between multiplication and division, seriously consider placing them in the previous book in this series.)

Section two: (The student should make no more than 2 mistakes on each of these points.)

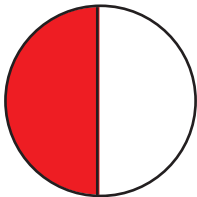**Point 1:** Find the area. Write the equations for each one.

3 inches

4 inches

2 inches

6 inches

4 inches

2 inches

2 x 2 = 4 sq. in   4 x 4 = 16 sq. in   6 x 3 = 18 sq. in
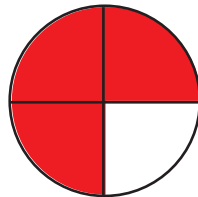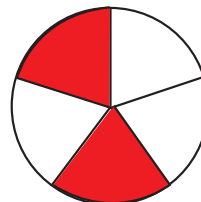
Point 2: Correctly divide and color each circle to show the fraction written under each one.
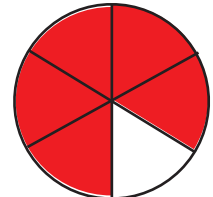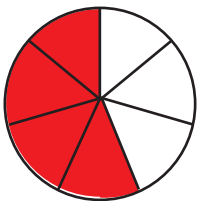
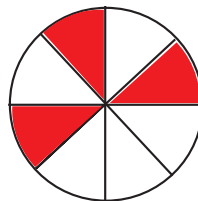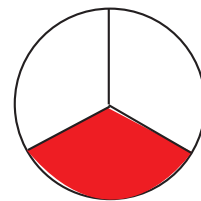$\frac{1}{2}$ $\frac{3}{4}$ $\frac{2}{5}$ $\frac{5}{6}$

$\frac{4}{7}$ $\frac{3}{8}$ $\frac{1}{3}$

Point 3: Solve these word problems.

There were 32 tulips at the flower stand. If 4 ladies bought an equal number of the tulips, how many tulips did they each buy?

32 ÷ 4 = 8

The family drove 126 miles before lunch. After lunch, they drove 253. How many more miles did they drive in the afternoon than in the morning? How many miles did they drive in the morning and the afternoon together?

$$253 - 126 = 127 \; / \; 126 + 253 = 379$$

Point 4: Solve these problems.

Circle groups of 3. $\frac{1}{6}$ of 18 = <u>3</u>   6 x <u>3</u> = 18

Circle groups of 5. $\frac{1}{2}$ of 10 = <u>5</u>   2 x <u>5</u> = 10

Circle groups of 4. $\frac{1}{3}$ of 12 = <u>4</u>   3 x <u>4</u> = 12

Point 5: Write the Roman Numeral for each number.

1	<u>I</u>
5	<u>V</u>
10	<u>X</u>
50	<u>L</u>
100	<u>C</u>
1,000	<u>M</u>

Book **5** Readiness Evaluation

This is a placement test to assess a student's ability to be successful in Math Lessons for a Living Education Book 5. Please discuss any missed problems with the student in order to understand the reason that student missed them. Please use discretion in placing the student in this level of math. Please do not place an un-prepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section one: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Add and Subtract.

$$
\begin{array}{r}
289{,}591 \\
429{,}398 \\
+\ 129{,}510 \\
\hline
848{,}499
\end{array}
\qquad
\begin{array}{r}
87{,}109{,}792 \\
+\ 1{,}349{,}029 \\
\hline
88{,}458{,}821
\end{array}
\qquad
\begin{array}{r}
890{,}573 \\
+\ 449{,}977 \\
\hline
1{,}340{,}550
\end{array}
$$

$$
\begin{array}{r}
23{,}369{,}219 \\
-\ \ \ \ 57{,}259 \\
\hline
23{,}311{,}960
\end{array}
\qquad
\begin{array}{r}
566{,}773 \\
-\ 233{,}783 \\
\hline
332{,}990
\end{array}
$$

Point 2: Multiply

$$
\begin{array}{r}
45 \\
\times\ 33 \\
\hline
135 \\
+\ 1350 \\
\hline
1{,}485
\end{array}
\quad
\begin{array}{r}
85 \\
\times\ 41 \\
\hline
85 \\
+\ 3400 \\
\hline
3{,}485
\end{array}
\quad
\begin{array}{r}
93 \\
\times\ 55 \\
\hline
465 \\
+\ 4650 \\
\hline
5{,}115
\end{array}
\quad
\begin{array}{r}
72 \\
\times\ 29 \\
\hline
648 \\
+\ 1440 \\
\hline
2{,}088
\end{array}
\quad
\begin{array}{r}
25 \\
\times\ 12 \\
\hline
50 \\
+\ 250 \\
\hline
300
\end{array}
$$

Divide.

$$
\begin{array}{r}
2\ \text{r.}1 \\
4\overline{)\ 9} \\
-8 \\
\hline
1
\end{array}
\qquad
\begin{array}{r}
2\ \text{r.}2 \\
3\overline{)\ 8} \\
-6 \\
\hline
2
\end{array}
\qquad
\begin{array}{r}
1\ \text{r.}1 \\
5\overline{)\ 6} \\
-5 \\
\hline
1
\end{array}
$$

Point 3: Word Problems

The toy shop had 2,872 boomerangs in stock for the Christmas sale. After the sale, there were 1,988 boomerangs still in stock. The store decided to place half of the boomerangs on the clearance shelves, and donate the other half to a missions organization. How many boomerangs were donated to the missions organization? When the boomerangs were delivered to the missions organization, they were equally packaged in two large boxes. How many were in each box? When the workers at the organization opened one of the boxes, they found that a dozen boomerangs had been damaged in the shipment. How many boomerangs were undamaged in that box?

1,988 ÷ 2 = 994 donated to missions

994 ÷ 2 = 497 in each box / 497 – 12 = 485 undamaged

Point 4: Add and subtract these fractions.

$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$ $2\frac{2}{5} + 1\frac{1}{5} = 3\frac{3}{5}$ $3\frac{5}{9} + 2\frac{1}{9} = 5\frac{6}{9}$

$\frac{3}{11} + \frac{6}{11} = \frac{9}{11}$ $6\frac{2}{3} - 4\frac{1}{3} = 2\frac{1}{3}$ $\frac{5}{12} - \frac{4}{12} = \frac{1}{12}$

$\frac{8}{13} - \frac{5}{13} = \frac{3}{13}$ $11\frac{9}{10} - 8\frac{3}{10} = 3\frac{6}{10}$

Section two: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Multiply top and bottom of each these fractions by 3 to find equivalent fractions.

$\frac{2}{5} = \frac{6}{15}$ $\frac{1}{3} = \frac{3}{9}$ $\frac{5}{8} = \frac{15}{24}$ $\frac{4}{7} = \frac{12}{21}$

Point 2: Find equivalent fractions by dividing each fraction by 4.

$\frac{4}{12} = \frac{1}{3}$ $\frac{32}{40} = \frac{8}{10}$ $\frac{20}{28} = \frac{5}{7}$

$\frac{40}{48} = \frac{10}{12}$ $\frac{12}{36} = \frac{3}{9}$ $\frac{16}{24} = \frac{4}{6}$

Point 3: Multiply

x	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

Book **6** Readiness Evaluation

This is a placement test to assess a student's ability to be successful in *Math Lessons for a Living Education Book 6*. The student must show the process of at least one of each type of problem, explaining it orally as they go. Please discuss any missed problems with the student in order to understand the reason he or she missed them. Please use discretion in placing the student in this level of math. Please do not place an unprepared student in this book, as it will only frustrate them and inhibit them from learning. Instructions for grading are at the beginning of each section.

Section One: (The student should make no more than 2 mistakes on each of these points.)

Point 1: Addition and Subtraction

1.
$$\begin{array}{r} 285,230 \\ +\quad 199,967 \\ \hline 485,197 \end{array}$$

2.
$$\begin{array}{r} 19,002 \\ +\quad 7,139 \\ \hline 26,141 \end{array}$$

3.
$$\begin{array}{r} 800,045 \\ -\quad 697,999 \\ \hline 102,046 \end{array}$$

4.
$$\begin{array}{r} 10,000 \\ -\quad 2,999 \\ \hline 7,001 \end{array}$$

Point 2: Multiplication and Division

5.
$$\begin{array}{r} 412,678 \\ \times\quad 3,312 \\ \hline 1,366,789,536 \end{array}$$

6.
$$\begin{array}{r} 812 \\ \times\quad 88 \\ \hline 71,456 \end{array}$$

7. $27 \overline{)56,781}$ = 2,103

8. $115 \overline{)230,542}$ = 2,004 R.82

Section Two: (The student should make no more than 2 mistakes on each of these points.)

Point 3: Story problem. Explain and show your teacher every step of this story problem.

9. A road trip is 2,540 miles long. One quarter of those miles were through mountainous terrain. Explain to your teacher how you would go about finding the number of miles that are through mountainous terrain. Write that number here: 635

    If you drove those miles through mountainous terrain at an average speed of 45 miles per hour, how many hours would it take you to drive through the mountainous terrain (explain and write your answer here). 14

Point 4: Place Value

Circle the digits.

10. In the ten's place: 317,002   299   512   899,982

11. In the ten-thousand's place: 23,009,167   56,451   173,900

12. In the million's place: 431,229,501   99,223,147   10,000,332

13. a. Now tell your teacher what each of the circled digits stand for.
    b. Read the numbers to your teacher.

Section Three: (The student should make no more than 2 mistakes on each of these points.)

Point 5: Fractions and Mixed Numbers (Watch those denominators!) Explain and show.

14. $+\ \dfrac{\frac{1}{2}}{\frac{1}{4}}$ $\dfrac{3}{4}$

15. $-\ \dfrac{6\frac{3}{5}}{2\frac{1}{5}}$ $4\frac{3}{4}$

16. $-\ \dfrac{7\frac{6}{14}}{5\frac{2}{7}}$ $2\frac{2}{14}$
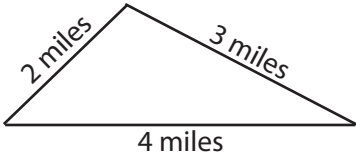
Point 6:

Circle the decimal or percent that matches the fraction. Explain and show your teacher as you solve each problem.
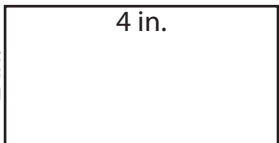
17. $\frac{1}{2}$:   40% and 0.4   20% and 0.2   50% and 0.5

18. $\frac{3}{4}$:   34% and 3.4   43% and 4.3   75% and 0.75

19. $\frac{1}{4}$:   22% and 0.22   25% and 0.25   14% and 0.14

20. $\frac{1}{5}$:   15% and 0.15   20% and 0.2   51% and 0.51

Section Four: (The student should make no more than 2 mistakes on each of these points.)

Point 7: Geometry

Find the perimeter of each shape.

21.

2 miles   3 miles

4 miles

9 miles

22.

4 in.

2 in.

12 inches

23.

1.2 cm

4.8 cm

24. Find the area of the rectangle in problem 22.   8 square inches

25. Explain the difference between the perimeter and the area of a shape.
    Area: the measurement of the inside of a shape.
    Perimeter: the distance around (or outside of) a shape.