6th Grade Math placement test

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www.thinkwellhomeschool.com

Welcome!

Thank you for your interest in Thinkwell. We know the curriculum selection process for your homeschool student can be challenging. This Placement Test was created to provide you with a tool to place your student in the appropriate level of math.

Please keep in mind, no placement test is perfect. If you have questions or concerns about the results of your student's placement test, reach out to us at Thinkwell support: support@thinkwell.com.

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Instructions and Overview

This placement test consists of 20 free-response questions. There is no time-limit for the test, but it shouldn't take your student longer than an hour to an hour and a half to complete. Your student should work each problem to the best of their ability. If they are unable to answer an item, tell them to move on to the next item and leave the question unanswered.

The 6th Grade Math placement test will assess your student's aptitude for the following skill areas:

- Graphing integers on a number line.
- Rounding whole numbers.
- Using the order of operations.
- Reading and dividing decimals.
- Adding fractions with unlike denominators.
- Ordering fractions, decimals, and percents.
- Finding an unknown value in proportions.
- Converting customary units and metric units.
- Finding elapsed time.
- Finding the perimeter and area of polygons.
- Finding the volume of rectangular prisms.
- Finding the third angle measure of triangles.
- Solving one-step equations and inequalities.
- Simplifying powers.

We recommend you **print the question portion of this document (pages 4–6)** so your student can work out the problems with pencil and paper.

Please be aware that **the answer key for this test starts on page 9**. We advise you to share the answer key with your student only after they've completed the test in its entirety.

Instructional videos for all the question items on this test are available by clicking the solution link in the answer key.

Questions? Concerns? Please reach out to us at support@thinkwell.com.

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6th Grade Math Placement Test

1. Graph the integer 2 and its opposite on a number line.

2. Simplify the expression.
$12 - 20 \div (5 \cdot 2)$

3. Add.
$\frac{1}{6} + \frac{2}{7}$

4. Write the decimal in standard form.
sixteen and eight hundredths

5. Divide.
$2.58 \div 0.3$

6. Write an expression for the missing value in the table.

Bella's Age	Martha's Age
5	3
6	4
7	5
n	

7. Solve the equation.
$m + 4 = -15$

8. Solve the inequality.
$x - 1 > 3$

9. Find the unknown value in the proportion.
$\frac{24}{16} = \frac{n}{2}$

10. Write 0.35%, 11/2, 0.9, and 150% in order from least to greatest.

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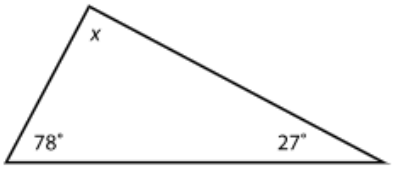
11. Convert 40 yards to feet.

12. Professor Burger completed a bike race that was 12.5 km. How many meters is this distance?

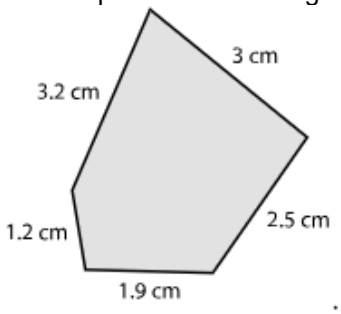
13. Paul's flight to Barcelona was scheduled to arrive at 11:20 A.M. It was 3 hours and 35 minutes late. When did it arrive?

14. Round 62 to the nearest ten.

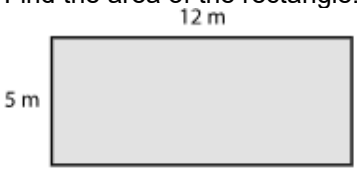
15. Find the unknown angle measure in the triangle.



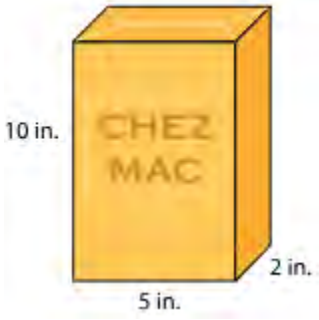
16. Find the perimeter of the figure.



17. Find the area of the rectangle.



18. Find the volume of the figure.



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19. Write impossible, unlikely, as likely as not, likely, or certain to describe the event.
Event: The spinner lands on dark gray.

20. Find the value.
3^4

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Scoring Guide

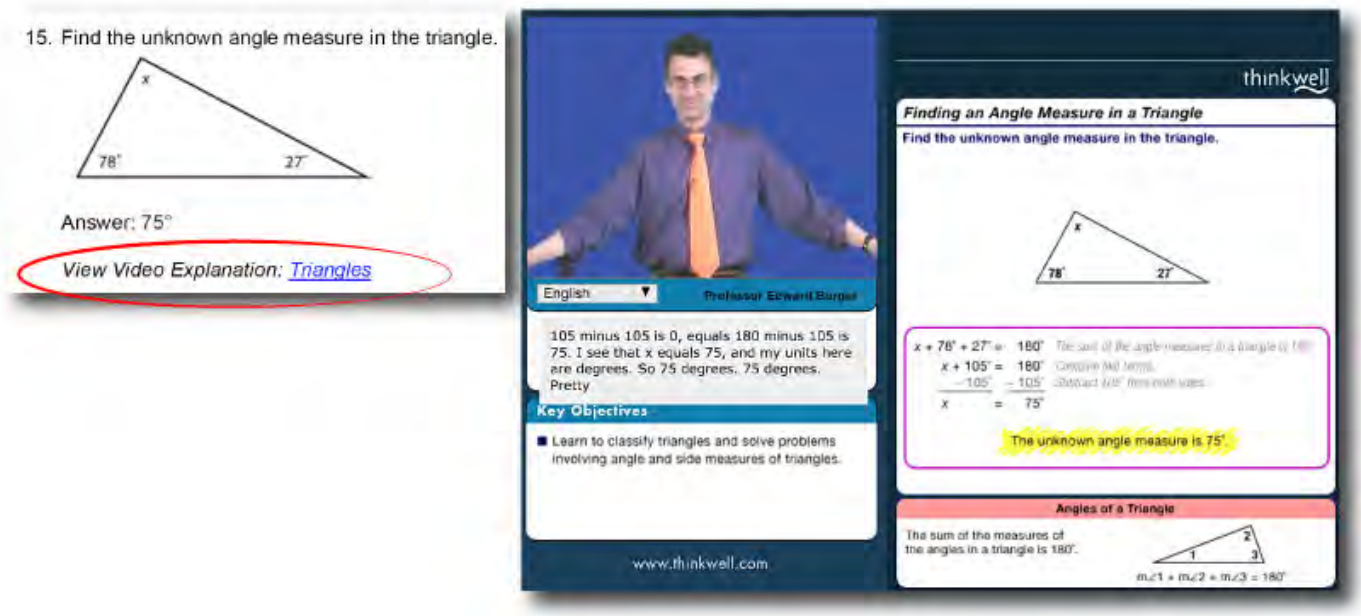
Use the scoring rubric below to help determine if 6th Grade Math is the appropriate course for your student.

Your placement test score and corresponding course recommendation should not be the only determining factor when deciding the appropriate course for your student. Your student's grade-level experience in previously completed math courses should also be considered.

Please feel free to contact a Thinkwell representative at support@thinkwell.com if you'd like to discuss your student's course placement in greater detail.

Number of questions correct	**Course recommendation**
5 or less	*Contact a Thinkwell Representative*
6 – 15	6th Grade Math
16 or more	Honors 6th Grade Math

See the Answer Key for explanations of all placement test questions. Click the blue video link to view instructional video explanations for all question items.



Wondering about the difference between 6th Grade Math and Honors 6th Grade Math? Read on to learn more.

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Regular 6th Grade Math vs Honors 6th Grade Math

Honors 6th Grade Math is a faster-paced, more rigorous course than our standard 6th Grade Math course. Both courses will prepare your student for success in Grade 7 Math and beyond; however, if you anticipate your student going on to higher level mathematics once they get to high school, the Honors sequence will benefit your student.

In brief:

- The content in Honors 6th Grade Math covers a greater scope and includes more advanced concepts than the standard 6th Grade Math.
- Each of the 107 daily lessons in Honors 6th Grade Math includes an average of 16 minutes of video content, while each of the 81 daily lessons in the standard 6th Grade Math includes an average of 12 minutes of video content.
- The assessments in Honors 6th Grade Math will be more challenging than those in the standard 6th Grade Math.

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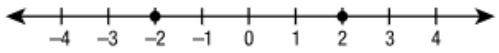
answer key

1. Graph the integer 2 and its opposite on a number line.

   Answer:

   View Video Explanation: Integers and the Number Line

2. Simplify the expression.
   $12 - 20 \div (5 \cdot 2)$

   Answer: 10

   View Video Explanation: Using the Order of Operations

3. Add.
   $\frac{1}{6} + \frac{2}{7}$

   Answer: 19/42

   View Video Explanation: Adding and Subtracting Fractions and Mixed Numbers

4. Write the decimal in standard form.
   sixteen and eight hundredths

   Answer: 16.08

   View Video Explanation: Representing, Comparing, and Ordering Decimals

5. Divide.
   $2.58 \div 0.3$

   Answer: 8.6

   View Video Explanation: Dividing Decimals

6. Write an expression for the missing value in the table.

Bella's Age	Martha's Age
5	3
6	4
7	5
n	

   Answer: $n - 2$

   View Video Explanation: Translating Between Tables and Expressions

7. Solve the equation.
   $m + 4 = -15$

   Answer: −19

   View Video Explanation: Solving Equations Containing Integers

8. Solve the inequality.
   $x - 1 > 3$

   Answer: $x > 4$

   View Video Explanation: Solving Inequalities by Adding or Subtracting

9. Find the unknown value in the proportion.
   $\frac{24}{16} = \frac{n}{2}$

   Answer: $n = 3$

   View Video Explanation: Finding an Unknown Value in Proportion

10. Write 0.35%, 11/2, 0.9, and 150% in order from least to greatest.

    Answer: 0.35% < 0.9 < 150% < 11/2

    View Video Explanation: Relating Percents, Decimals, and Fractions

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11. Convert 40 yards to feet.

    Answer: 120 feet

    View Video Explanation: *Converting Customary Units*

12. Professor Burger completed a bike race that was 12.5 km. How many meters is this distance?

    Answer: 12,500 m

    View Video Explanation: *Converting Metric Units*

13. Paul's flight to Barcelona was scheduled to arrive at 11:20 A.M. It was 3 hours and 35 minutes late. When did it arrive?

    Answer: 2:55 P.M.

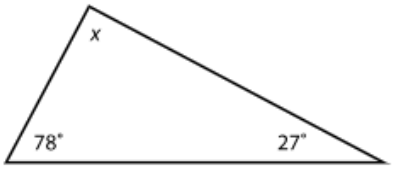
    View Video Explanation: *Time and Temperature*

14. Round 62 to the nearest ten.

    Answer: 60

    View Video Explanation: *Rounding Whole Numbers*

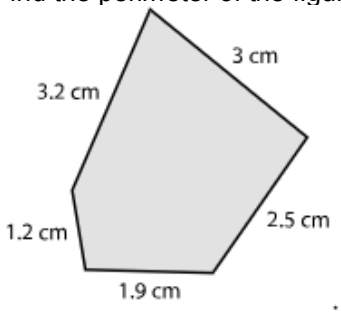
15. Find the unknown angle measure in the triangle.



    Answer: 75°

    View Video Explanation: *Triangles*

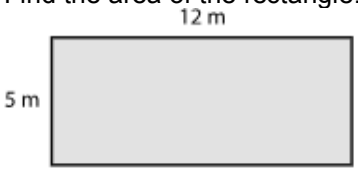
16. Find the perimeter of the figure.



    Answer: 11.8 cm

    View Video Explanation: *Perimeter*

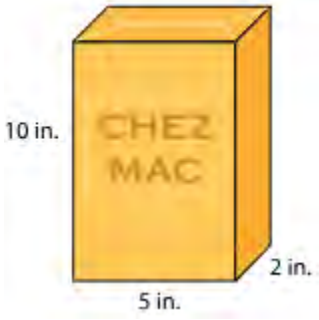
17. Find the area of the rectangle.



    Answer: 60 m^2

    View Video Explanation: *Area of Rectangles and Parallelograms*

18. Find the volume of the figure.



    Answer: 100 in^3

    View Video Explanation: *Volume of Prisms and Cylinders*

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19. Write impossible, unlikely, as likely as not, likely, or certain to describe the event.
Event: The spinner lands on dark gray.

Answer: as likely as not

View Video Explanation: Introduction to Probability

20. Find the value.
3^4

Answer: 81

View Video Explanation: Introduction to Exponents

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About Thinkwell Courses

Thinkwell offers the following core courses in our Homeschool Math series:

- 6th Grade Math
- 7th Grade Math
- 8th Grade Math
- Algebra 1
- Geometry
- Algebra 2
- Precalculus
- Trigonometry
- Calculus
- Honors 6th Grade Math
- Honors 7th Grade Math
- Honors 8th Grade Math
- Honors Algebra 1
- Honors Geometry
- Honors Algebra 2
- AP Calculus AB
- AP Calculus BC

What's the difference between the standard Thinkwell courses and the honors courses? In general, the Thinkwell Honors courses will be faster-paced and more rigorous than our standard courses. Our Honors courses will cover more material than the standard courses and the assessments will be more challenging. Unless you need the Honors recognition for your student's transcript, or unless your student is aiming to pursue a science or math-related course of study, we recommend sticking with the standard course sequence.

Typical Sequence of Secondary Math Courses

A typical sequence of secondary math courses completed by a college-bound student is listed below. Most college-bound students will take seven or eight years of math between 6th and 12th grades, beginning with 6th Grade Math and ending with Precalculus or Calculus.

Standard Sequence:

Middle school:

Year 1	**Year 2**	**Year 3**
6th Grade Math	7th Grade Math	8th Grade Math

High School:

Year 1	**Year 2**	**Year 3**	**Year 4**
Algebra 1	Geometry	Algebra 2	Precal or Trig

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Accelerated Sequence:

Middle school:

Year 1	Year 2	Year 3
7th Grade Math	8th Grade Math	Algebra 1

High School:

Year 1	Year 2	Year 3	Year 4
Geometry	Algebra 2	Precal or Trig	Calculus

Where Do You Begin?

If you wondering about where to start your student with the Thinkwell math course sequence, we recommend that you **begin with the end in mind**.

In other words, where do you want your student to be at the end of their course of study in high school? If your student is college-bound, and you want them to take Calculus before they go to college, then work backwards from the 'accelerated sequence' above to see where you need to be right now.

Unless your student is planning to pursue a science or math-related degree, Calculus doesn't necessarily need to be the terminal course for your high school student.

Questions? Please reach out to us at support@thinkwell.com. We're here and happy to help.

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