

Round 1, Question 1

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

At Newport High School, letter grades correspond to number point values. An A is worth 4 points, a B is worth 3 points, a C is worth 2 points, and a D is worth 1 point. Jonny is a student at Newport who has earned 3 Ds, 4 Cs, 2 Bs, and 4 As. Jonny's grades are listed out in their numerical equivalents. What is the median of this list?

Round 1, Question 2

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

At Newport High School, students are given points based on their grades in a class. After taking 5 classes, Jonny's average number of points is 3.6. Honors classes are weighted such that a student can get at most 5.0 points. If he takes TNYWR honors classes next semester, what will his average be at the end of the next semester, assuming he gets 5.0 in all his honors classes?

Round 1, Question 3

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

Assuming that Jonny's current grade point average is TNYWR and he has taken 3 classes, what is the maximum number of classes he can get a C in (2.0 point worth) so that his average will not drop to or below a 3.0?

Round 1, Question 4

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

At Jonny's school, he receives a number of points after every class he takes. After being sick for a few months, Jonny's average point count was reduced to 1.5 after having taken 6 classes. If the maximum points Jonny can get in a class is 4, what is the minimum number of classes Jonny must take to get his average to at least TNYWR?

Round 2, Question 1

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

The area of a certain right triangle is 60 square meters. If all the side lengths are increased by a factor of $\frac{5}{2}$, what is the area of the new triangle?

Round 2, Question 2

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

Assuming you have an infinite number of quarters, nickels, dimes, and pennies, what is the minimum number of coins you need to get TNYWR cents?

Round 2, Question 3

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

What is the interior angle of a regular polygon with TNYWR sides?

Round 2, Question 4

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

What is the second smallest prime number larger than the largest prime that divides TNYWR?

Round 3, Question 1

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

Compute: 45×46

Round 3, Question 2

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

If A and B are the largest and second largest prime numbers, respectively, that evenly divide TNYWR, what is the least common multiple of A and B?

Round 3, Question 3

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

What is the smallest positive integer N such that $TNYWR+N$ is a perfect cube?

Round 3, Question 4

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

A circle has circumference $TNYWR$. What is its area?

Round 4, Question 1

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

A non-degenerate circle's area is equal to $\frac{5}{2}$ times its circumference. What is the radius of this circle?

Round 4, Question 2

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

A right triangle has integer side lengths. If the hypotenuse is TNYWR, and I have a string of length 125, how many times can I wrap the string completely around the triangle?

Round 4, Question 3

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

A swimming pool is 36 meters long, 5 meters wide, and 5 meters deep. A hose can fill the pool at a rate of 15 cubic meters/second and the pool drains at TNYWR cubic meters/second. How long, in seconds, would it take to fill an empty pool?

Round 4, Question 4

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

What is the least common multiple of the numerator and denominator of the reduced fraction equal to the value $\frac{5}{6} + \frac{4}{9} + \frac{20}{TNYWR}$?

Round 5, Question 1

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

A shipping container in the shape of a rectangular prism has a length of 2 feet, a width of 4 yards, and a height of 63 inches. What is the volume of this container in cubic feet?

Round 5, Question 2

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

A cone has radius 5 and a height of TNYWR. If the volume were to be increased by 50%, what is the new volume of the cone?

Round 5, Question 3

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

After TNYWR seconds, how many degrees rounded to the nearest number has the minute hand moved on a standard analog clock?

Round 5, Question 4

General Instructions: In all questions after Question 1 of each round, the capital letter TNYWR represents the answer to the previous question. Once you solve your question, write only a numerical answer on the answer sheet; do not include units.

If it is currently 6PM on a Saturday, what day of the week will it be TNYWR hours from now?