Relay Problem #0 (Seat a)

Evaluate $\frac{2 + 5 \times 5}{3}$.

Relay Problem #0 (Seat b)

Let $t$ be TNYWR.
What is the area of a triangle with base $2t$ and height $2t - 6$?

Relay Problem #0 (Seat c)

Let $t$ be TNYWR.
In the diagram, $\triangle ABC$ is isosceles with $AB = BC$. If $\angle ABC = t^\circ$, what is the measure of $\angle BAC$, in degrees?
Relay Problem #1 (Seat a)

An equilateral triangle has sides of length $x + 5$, $y + 11$, and 14. What is the value of $x + y$?

Relay Problem #1 (Seat b)

Let $t$ be TNYWR.

Gray has $t$ dollars consisting of $1$ and $2$ coins. If she has the same number of $1$ and $2$ coins, how many $1$ coins does she have?

Relay Problem #1 (Seat c)

Let $t$ be TNYWR.

Elise has $t$ boxes, each containing $x$ apples. She gives 10% of her apples to her brother. She then gives 6 apples to her sister. After this, she has 48 apples left. What is the value of $x$?
Relay Problem #2 (Seat a)

The numbers $x + 5$, $14$, $x$, and $5$ have an average of $9$. What is the value of $x$?

Relay Problem #2 (Seat b)

Let $t$ be TNYWR.
Each of the three lines having equations $x + ty + 8 = 0$, $5x - ty + 4 = 0$, and $3x - ky + 1 = 0$ passes through the same point. What is the value of $k$?

Relay Problem #2 (Seat c)

Let $t$ be TNYWR.
Quadrilateral $ABCD$ has vertices $A(0,3)$, $B(0,k)$, $C(t,10)$, and $D(t,0)$, where $k > 3$ and $t > 0$. The area of quadrilateral $ABCD$ is 50 square units. What is the value of $k$?
Relay Problem #3 (Seat a)

Let $M$ be the number of multiples of 5 between 1 to 2020 inclusive and $N$ be the number of multiples of 20 between 1 and 2020 inclusive. What is the value of $10M \div N$?

Relay Problem #3 (Seat b)

Let $t$ be TNYWR.

Four line segments intersect in points $A, B, C, D$, and $E$, as shown. The measure of $\angle CED$ is $x^\circ$. What is the value of $x$?

Relay Problem #3 (Seat c)

Let $t$ be TNYWR.

Armen paid $190 to buy movie tickets for a group of $t$ people, consisting of some adults and some children. Movie tickets cost $5 for children and $9 for adults. How many children’s tickets did he buy?