@title Real-World Math Challenge

@description This assessment presents practical problems requiring reasoning, calculation, and interpretation of given data.

@question A city bus has routes to the North Side, East Side, and West Side. The table shows the available ticket types and their prices. How many choices are there for a bus fare?

| | Ticket Type | Price| |
| --- |
| | :---: | :---: | |
| |One way | $2 | |
| | Round trip | $3 | |
| | Day pass | $5 | |

@instruction Choose the correct answer

@difficulty easy

@Order 1

@option Eight

@@option Nine

@option Ten

@option Twelve

@explanation There are three bus routes and three ticket types, which results in $3 \times 3 = 9$ choices for a bus fare.

@subject Quantitative Math

@unit Problem Solving

@topic Counting & Arrangement Problems

@plusmarks 1

@question A rectangular crate containing 12 oranges is shown. Each orange has a radius of 4 inches. What are the dimensions, in inches, of the crate?

![](https://raw.githubusercontent.com/Gourangsharma/question\_output/main/crate\_oranges.png)

@instruction Select the correct answer

@difficulty hard

@Order 2

@option $8 \times 20 \times 24$

@option $16 \times 20 \times 24$

@option $8 \times 24 \times 32$

@@option $8 \times 24 \times 40$

@explanation The crate can hold three columns of four oranges, making its length $3 \times 2r = 3 \times 2 \times 4 \ \text{inches} = 24 \ \text{inches}$.

Its width is $1 \times 2r = 1 \times 2 \times 4 \ \text{inches} = 8 \ \text{inches}$.

In height, it can hold five oranges stacked, so height $= 5 \times 2r = 5 \times 2 \times 4 \ \text{inches} = 40 \ \text{inches}$.

The correct answer is $8 \times 24 \times 40$.

@subject Quantitative Math

@unit Geometry and Measurement

@topic Solid Figures (Volume of Cubes)

@plusmarks 1