✅ Problem 1 — Temperature Conversion

Task:
Write an R function that takes temperature in Celsius and returns temperature in Fahrenheit and Kelvin.

Input data:

```
tempC <- 25
```

✅ Problem 2 — Triangle Geometry

Task:
Write an R function that takes the base and height of a right triangle and returns its area and perimeter.

Input data:

```
b <- 6
h <- 8
```

✅ Problem 3 — Simple and Compound Interest

Task:
Write an R function that takes principal (P), rate ®, and time (t) and returns simple interest (SI) and compound interest (CI).

Input data:

```
P <- 10000
r <- 5
t <- 3
```

✅ Problem 4 — Student Grade Calculator

Task:
Write an R function that takes 3 subject marks and returns total marks, average marks, and a letter grade (A, B, C, or F).

Input data:

```r
marks <- c(85, 72, 90)
```

✅ Problem 5 — Vector Statistics

Task:
Write an R function that takes a numeric vector and returns its mean, median, standard deviation, and range.

Input data:

```r
x <- c(4, 8, 6, 3, 9, 12)
```

✅ Problem 6 — Financial Ratios

Task:
Write an R function that takes revenue and cost and returns profit, profit margin (%), and cost ratio (%).

Input data:

```r
revenue <- 250000
cost <- 180000
```

✅ Problem 7 — Body Mass Index (BMI)

Task:
Write an R function that takes weight (kg) and height (meters) and returns BMI and the corresponding weight category.

Input data:

```r
weight <- 70
height <- 1.75
```

✅ Problem 8 — Speed Calculator

Task:
Write an R function that takes distance (km) and time (hours) and returns speed in km/h and in m/s.

Input data:

```
distance <- 150
time <- 2
```

✅ Problem 9 — Quadratic Equation Solver

Task:
Write an R function that takes the coefficients `a`, `b`, and `c` of a quadratic equation and returns the two roots and the discriminant.

Input data:

```
a <- 1
b <- -5
c <- 6
```

✅ Problem 10 — Mechanical Energy Calculator

Task:
Write an R function that takes mass, velocity, height, and gravitational acceleration (default 9.8 m/s²) and returns kinetic energy, potential energy, and total energy.

Input data:

```
mass <- 2
velocity <- 4
height <- 10
g <- 9.8
```
