

[Course](#) > [Section 4: Program...](#) > [Section 4 Assessme...](#) > Section 4 Assessme...

## Section 4 Assessment

### Question 1

1/1 point (graded)

Load the **heights** dataset from dslabs:

```
library(dslabs)
data(heights)
```

Write an `ifelse` statement that returns 1 if the sex is Female and 2 if the sex is Male.

What is the sum of the resulting vector?



You have used 1 of 10 attempts

### Question 2

1/1 point (graded)

Write an `ifelse` statement that takes the height column and returns the height if it is greater than 72 inches and returns 0 otherwise.

What is the mean of the resulting vector?



You have used 1 of 10 attempts



### Question 3

2/2 points (graded)

Write a function `inches_to_ft` that takes a number of inches `x` and returns the number of feet. One foot equals 12 inches.

What is `inches_to_ft(144)`?



How many individuals in the heights dataset have a height less than 5 feet?



You have used 1 of 10 attempts

### Question 4

2.0/2.0 points (graded)

Which of the following are TRUE?

Select ALL that apply.

- ☒ `any(TRUE, TRUE, TRUE)`
- ☒ `any(TRUE, TRUE, FALSE)`
- ☒ `any(TRUE, FALSE, FALSE)`
- ☐ `any(FALSE, FALSE, FALSE)`
- ☒ `all(TRUE, TRUE, TRUE)`
- ☐ `all(TRUE, TRUE, FALSE)`
- ☐ `all(TRUE, FALSE, FALSE)`



☐ `all(FALSE, FALSE, FALSE)`



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You have used 1 of 5 attempts

## Question 5

1/1 point (graded)

Given an integer  $x$ , the factorial of  $x$  is called  $x!$  and is the product of all integers up to and including  $x$ .

The `factorial()` function computes factorials in R. For example, `factorial(4)` returns

`4! = 4 × 3 × 2 × 1 = 24`.

```
# define a vector of length m
m <- 10
f_n <- vector(length = m)

# make a vector of factorials
_____ {
  f_n[n] <- factorial(n)
}

# inspect f_n
f_n
```

Complete the code above to generate a vector of length  $m$  where the first entry is  $1!$ , the second entry is  $2!$ , and so on up to  $m!$ .

☐ `function(n)`

☐ `if(n < m)`

☒ `for(n in 1:m)` ✓

☐ `function(m,n)`

☐ `if(m < n)`

☐ `for(m in 1:n)`



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You have used 1 of 2 attempts

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