

# Creating Contracts From Examples

**Directions :** For each of the following collections of Examples, write the contract for the function above the examples.

1. \_\_\_\_\_ :: \_\_\_\_\_ -> \_\_\_\_\_

examples:

```
third-root(16) is expt(16, 1/3)
third-root(125) is expt(125, 1/3)
third-root(625) is expt(625, 1/3)
```

end

2. \_\_\_\_\_ :: \_\_\_\_\_ -> \_\_\_\_\_

examples:

```
sentence-length("hello", 5) is string-length("hello") + 5
sentence-length("please", 6) is string-length("please") + 6
sentence-length("goodbye", 10) is string-length("goodbye") + 10
```

end

3. \_\_\_\_\_ :: \_\_\_\_\_ -> \_\_\_\_\_

examples:

```
upside-down(triangle(50, "solid", "yellow")) is
  rotate(180, triangle(50, "solid", "yellow"))
upside-down(star(150, "solid", "blue")) is
  rotate(180, star(150, "solid", "blue"))
```

end

4. \_\_\_\_\_ :: \_\_\_\_\_ -> \_\_\_\_\_

examples:

```
product-squared(5, 6) is sqr(5 * 6)
product-squared(10, 17) is sqr(10 * 17)
product-squared(2, 5) is sqr(2 * 5)
```

end

5. \_\_\_\_\_ :: \_\_\_\_\_ -> \_\_\_\_\_

examples:

```
half-image("www.images.com/cat_image") is
  scale(0.5, bitmap/url("www.images.com/cat_image"))
half-image("www.images.com/dog_image") is
  scale(0.5, bitmap/url("www.images.com/dog_image"))
```

end

6. \_\_\_\_\_ :: \_\_\_\_\_ -> \_\_\_\_\_

examples:

```
triple(4) is 4 * 3
triple(10) is 10 * 3
triple(3) is 3 * 3
```

end