

Math Statement in Natural Language

“Find the product of $\frac{2}{3}$ and 6. The answer is 4.”

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Math Statement in Formal Language (optional)

theorem
shows “ $\frac{2}{3} * 6 = 4$ ”

F

Formalization

Reference

```
theorem
fixes x y ::real
assumes "x = 2/3"
and "y = 6"
shows "x * y = 4"
```

```
theorem
fixes a b ::real
assumes "a = 2/3"
and "b = 6"
shows "a * b = 4"
```

Pair-wise Checking of Symbolic Equivalence

```
theorem
shows "4 = 4"
```

```
theorem
fixes x y ::real
assumes "x = 0.66"
and "y = 6"
shows "x * y = 4"
```

```
theorem
fixes x y ::real
assumes "x = 0.6666"
and "y = 6"
shows "x * y = 4"
```

Informalization

“Let x be two-thirds and y be six. Prove that when you multiply x by y, it equals four.”

“Let a be two-thirds and b be six. Prove that when you multiply a by b, it equals four.”

“Imagine x is 0.66 and y is 6. We're gonna show that x times y comes out to 4.”

“Show that 4 is the same as 4.”

If x is 0.6666 and y is 6, then x times y is 4.

Palmate Checking of Semantic Consistency

Selection after Scoring

```
theorem
fixes x y ::real
assumes "x = 2/3"
and "y = 6"
shows "x * y = 4"
```