

# Section 1

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## 1 1-1

### 1.1 milk

Would you like 2% milk? Yes please :}

The output % is produced by the input \%, but \ is not produced by \\

## 2 1-2

### 2.1 exponents

By convention, a tower of exponents  $a^{b^c}$  in mathematics is always interpreted as  $a^{(b^c)}$ . In other words, exponents are right-associative. The reason for this is that the left-associated interpretation  $(a^b)^c$  can be expressed more simply as  $a^{b \times c}$ , by the laws of exponents.

### 2.2 limit

$$\int_0^1 f(x)dx = \lim_{t \rightarrow \infty} t^{-1} \sum_{i=1}^t f(i/t)$$

### 2.3 fractions

$$\frac{1}{\sqrt[4]{5} - \sqrt[4]{2}} = \frac{(\sqrt[4]{5} + \sqrt[4]{2})(\sqrt{5} + \sqrt{2})}{3}$$
$$1 + \frac{1}{1 + \frac{1}{1 + \dots}} = \frac{1 + \sqrt{5}}{2}$$

## 3 1-3

### 3.1 lists

1. for the money

2. for the show

3. to get ready

- now
- go
- ◇ chat
- go!

### 3.2 alligator

Grandpa said, “When I was your age — in the ‘roaring ’20s — we had it rough. The ‘alligator shoes’ we wore during the 1927–1928 school year were just to kick the gators tryin’ to eat us.” My dad chimed in, “I wouldn’t have minded your -40 tempatures instead of our +40 ones!”

### 3.3 pâte

*En français*, **pâte** can mean either pastry or paste, its plural **pâtes** most commonly refers to pasta noodles, and **pâté** is a congealed meat product.