

# Notes on Digital communication

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## 1. Preliminaries

**Definition 1.1.** Let  $A, B$  be sets. We say  $A \subseteq B$  if every  $a \in A$  also satisfies  $a \in B$ .

**Theorem 1.2** (Pythagorean Theorem). Let  $a, b$  be the legs of a right triangle and  $c$  the hypotenuse. Then:

$$a^2 + b^2 = c^2.$$

*createTable(3, 3)*

*Proof.* This follows from Euclidean geometry. □

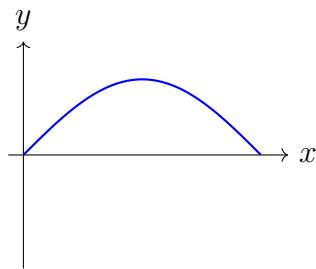


Figure 1: A sine function

Table 1: Sample Data in Landscape Mode

$x$	$f(x)$	$\nabla f(x)$	$\int f(x) dx$
0	0	1	0
$\pi/2$	1	0	1

*Example 1.3.* Let  $\not{p} = \gamma^\mu p_\mu$ . Then  $\not{p}^2 = p^2$  in Minkowski space.

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