

# → Script - Semantic Rules

## Expression Semantics

*Operator order does not matter*

### Type matching

Aa Order	≡ Operator 1	≡ Operator 2	≡ +	≡ -	≡ *	≡ /	≡ >, <	≡ ==, !=	≡ &	≡
<u>1</u>	int	int	int	int	int	float	int	int	int	int
<u>2</u>	int	float	float	float	float	float	int	int	int	int
<u>3</u>	int	char	error	error	error	error	error	error	error	error
<u>4</u>	float	float	float	float	float	float	int	int	int	int
<u>5</u>	float	char	error	error	error	error	error	error	error	error
<u>6</u>	char	char	error	error	error	error	error	int	error	error
<u>Untitled</u>										

### Operator precedence

# Precedence	Aa Operator type	≡ Operator	≡ Associativity
0	<u>Grouping</u>	( )	-
1	<u>Member</u>	{object}.{...}	Left
2	<u>Multiplication &amp; Division</u>	* /	Left
3	<u>Addition &amp; Subtraction</u>	+ -	Left
4	<u>Relational</u>	> <	Left
5	<u>Equality</u>	== !=	Left
6	<u>Logical AND</u>	&	Left
7	<u>Logical OR</u>		Left
8	<u>Assignment</u>	=	Right

# Precedence	Aa Operator type	≡ Operator	≡ Associativity
9	<u>Comma</u>	,	Left
	<u>Untitled</u>		

# Variable Semantics

## Function Directory

Aa name (key)	≡ type	≡ var_directory
<u>AS_Program</u>	program	{ref to "Variable Directory (for AS_Program)"}
<u>fact</u>	int	{ref to "Variable Directory (for fact)"}

## Variable Directory (for "AS\_Program" function)

Aa name (key)	≡ type
i	int
j	int
p	int
<u>student</u>	Person

## Variable Directory (for "fact" function)

Aa name (key)	≡ type
<u>x</u>	int
<u>y</u>	int

## Class Directory

Aa name (key)	≡ type	≡ attr_directory	≡ method_directory
<u>Person</u>	class	{ref to "Attribute Directory (for Person Class)"}	{ref to "Method Directory (for "Person" class)"}

### Attribute Directory (for "Person" class)

<u>Aa</u> name (key)	<u>≡</u> type
<u>age</u>	int
<u>name</u>	char[30]

### Method Directory (for "Person" class)

<u>Aa</u> name (key)	<u>≡</u> type	<u>≡</u> var_directory
<u>one</u>	int	{ref to "Variable Directory (for "one" method in "Person" class)"}

### Variable Directory (for "one" method in "Person" class)

<u>Aa</u> name (key)	<u>≡</u> type
<u>x</u>	int