

1.1 Evaluate Expressions

- Substituting # & exponents

Vocab

Variable - A letter that represents one or more #'s

Algebraic expression - An expression with at least 1 variable (will have # & +, -, *, ÷)

Alg Exp	Meaning	Operation
$5n, 5 \cdot n, 5(n)$	5 times n	Multiply, product
$\frac{14}{y}, 14 \div y$	14 divided by y	Divide, quotient
$6 + c$	6 plus c	add, sum
$8 - x$	8 minus x	Subtract, difference

Example 1 - Evaluate each

for $y=2$

a) $6y$

$= 6 \cdot 2$

$= 12$

b) $\frac{8}{y}$

$8 \div 2 = 4$

c) $y+4$

$2+4=6$

d) $11-y$

$11-2=9$

Exponents

4^3

The 3 is the exponent

The 4 is the base

Called a power

$$4^3 = 4 \cdot 4 \cdot 4$$

$$4^3 = 4 \cdot 4 \cdot 4$$

$$4^2 = 4 \cdot 4$$

$$4^1 = 4$$

$$4 \square \wedge 3 \square \equiv 64$$

Example 2 - Write powers & evaluating

$$a) 4^1 =$$

$$b) 7^2 =$$

$$* c) \left(\frac{1}{2}\right)^3 =$$

$$d) \left(\frac{2}{5}\right)^5 = \frac{2}{5} \cdot \frac{2}{5} \cdot \frac{2}{5} \cdot \frac{2}{5} \cdot \frac{2}{5} = \frac{32}{3125}$$