VARIABLES AND EXPRESSIONS
(SSE.A.1a and SSE.A.1b)

An algebraic expression consists of sums and/or products of numbers and variables.

$3x$ $2x+4$

$3+\frac{z}{6}$ $p \cdot q$

$4cd \div 3mn$

$2x + 4$

terms - joined together by multiplication

- $2x$ is a variable term.
- 4 is a constant term.

The factors of a number are the numbers you multiply to get that number. For instance, some factors of 12 are 4 and 3, because 4 x 3 = 12.

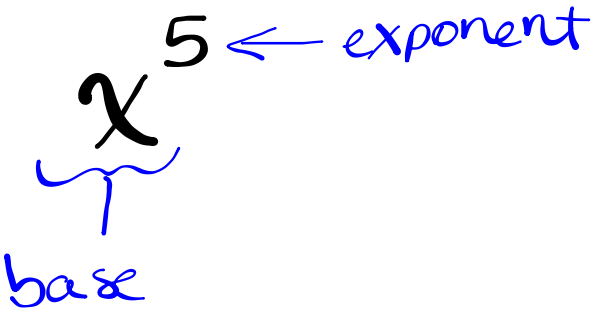
If we have a product where one of the factors is unknown, such as 2x (remember--2x is 2 times x), we can still identify the factors:

$2x$

The factors of $2x$ are 2 and x.

xy

The factors of xy are x and y.



The x^5 is a power term.

Remember: $x^5 = x \cdot x \cdot x \cdot x \cdot x$, not $5 \cdot x$.

$$3x^4 + 5x - 7$$

Power term: $3x^4$

Constant: -7

Factors of $5x$: 5 and x

VERBAL EXPRESSIONS

$3x^4$

- 3 times x to the 4th power
- The product of 3 and a number raised to the 4th power.

$5z^4 + 16$

- 5 times z to the 4th power plus 16.
- The sum of the product of 5 and z to the 4th power and 16.

ALGEBRAIC EXPRESSIONS

A number t more than 6.

$$t + 6$$

10 less than the product of 7 and a number.

$$7x - 10$$

~~$10 - 7x$~~

* "Less than" switches the order!

Two thirds of the volume V.

$$\frac{2}{3}V$$

9 plus the product of 2 and a number.

$9+2x \mid 2x+9$

5 less than a number

$x-5$