The Fabulous 15 Literary Devices

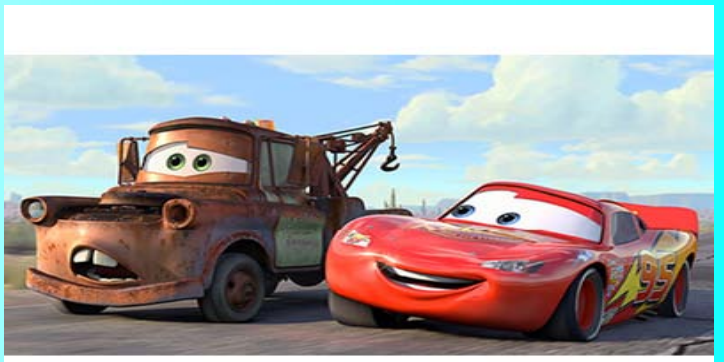
ONOMATOPOEIA

is a word that imitates the sound it represents.

*Examples:*crunch
zap
tick-tock
whoosh

PERSONIFICATION

is when a writer gives human qualities to animals or objects.

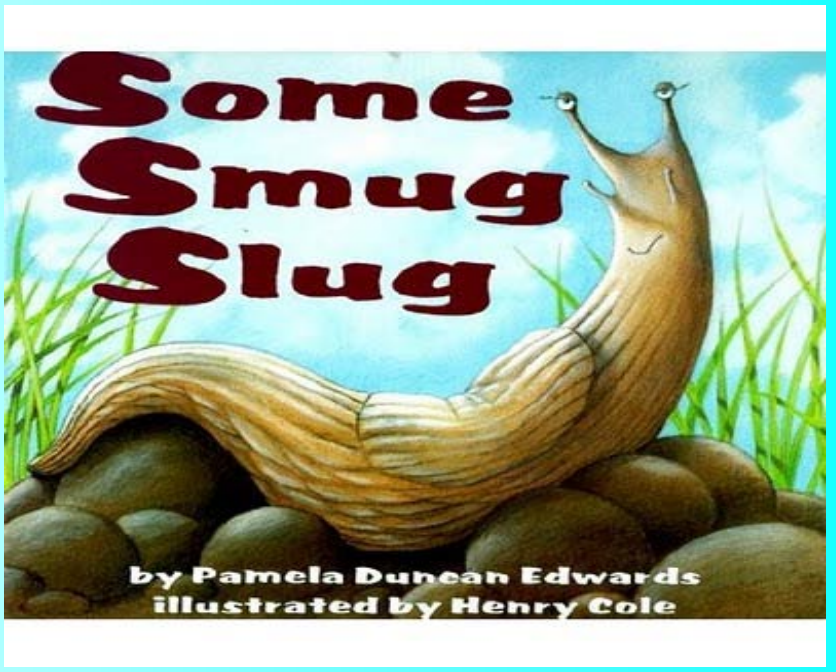


Examples: My car drank the gasoline in one gulp.
The cat laughed.
The newspaper headline glared at me.

ALLITERATION

is the repetition of the same consonant sound in words occurring near one another.

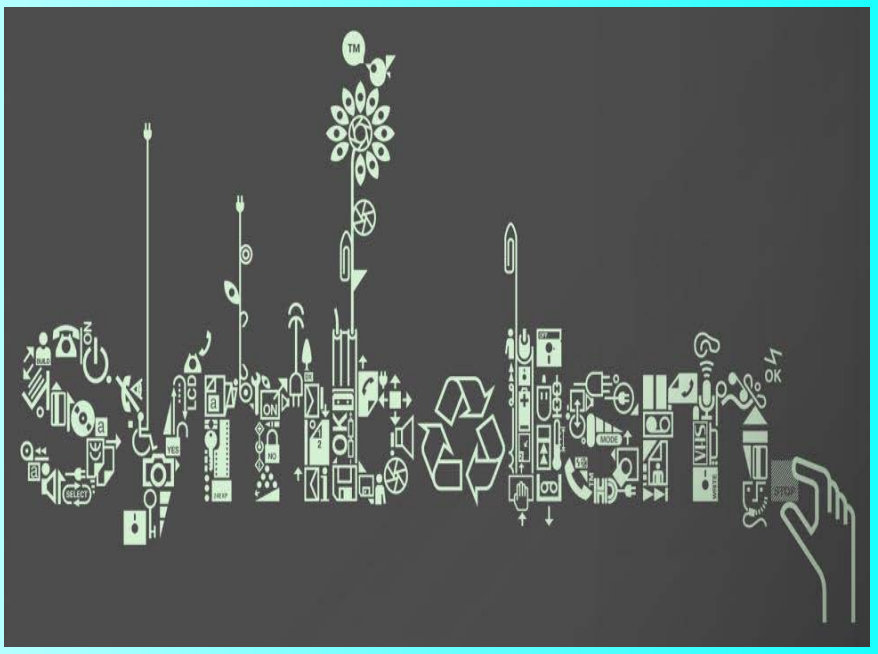
*Examples:*Peter Piper picked a peck of pickled peppers.
Sally sells seashells by the seashore.



SYMBOLISM

is using an object or action that <u>means</u> something more than its literal meaning.

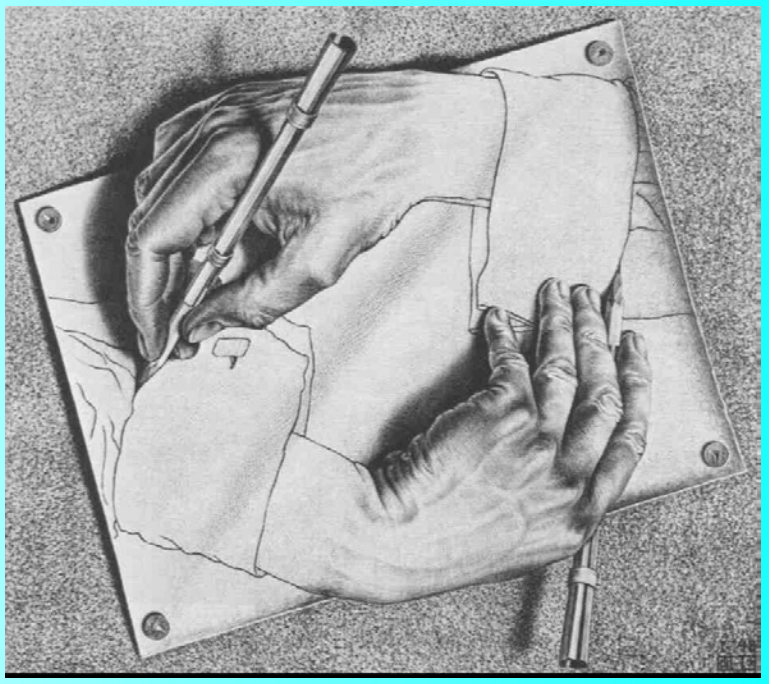
Examples: Pink symbolizes the fight against breast cancer.
The Statue of Liberty symbolizes freedom.



PARADOX

reveals a truth which at first seems contradictory.

Examples: He was cowardly and brave at the same time.
When you win all the time, you lose.



HYPERBOLE

is an obvious exaggeration or overstatement.

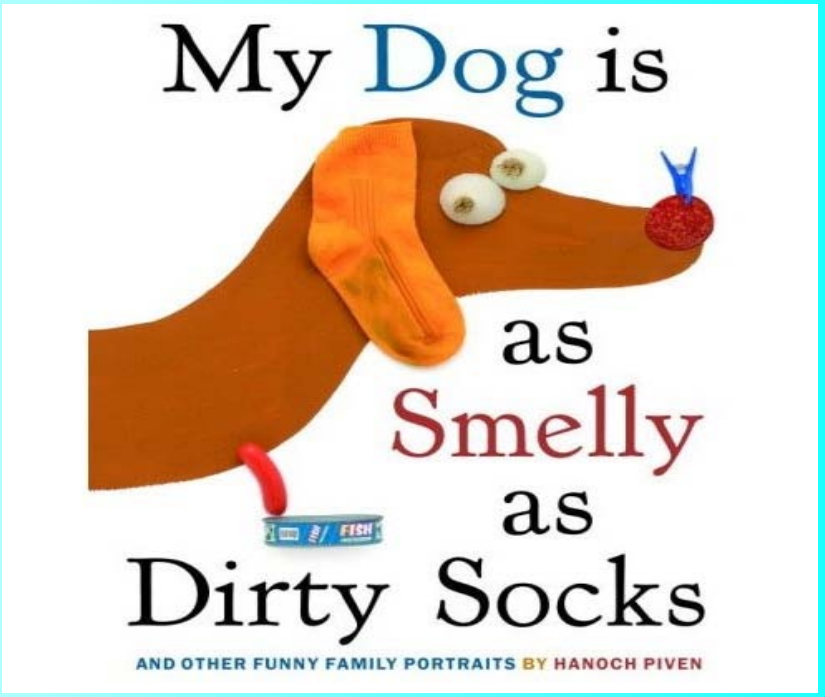
Examples: I'm so hungry I could eat the entire buffet at Golden Corral right now!

SIMILE

is an expression comparing one thing to another using the words “like” or “as”.

Examples: He ran like a cat, lightly and quietly.

Her blue mood passed as quickly as an afternoon rain shower.

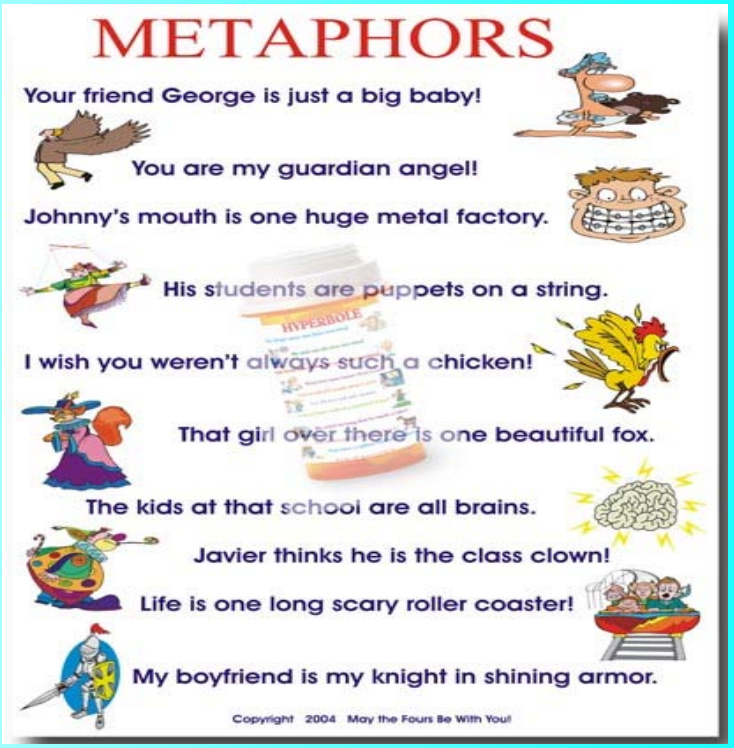


METAPHOR

is a comparison of two unlike things without using the words “like” or “as”.

Examples: He was a statue, waiting to hear the news.

She was a mother hen, trying to take care of everyone around her.

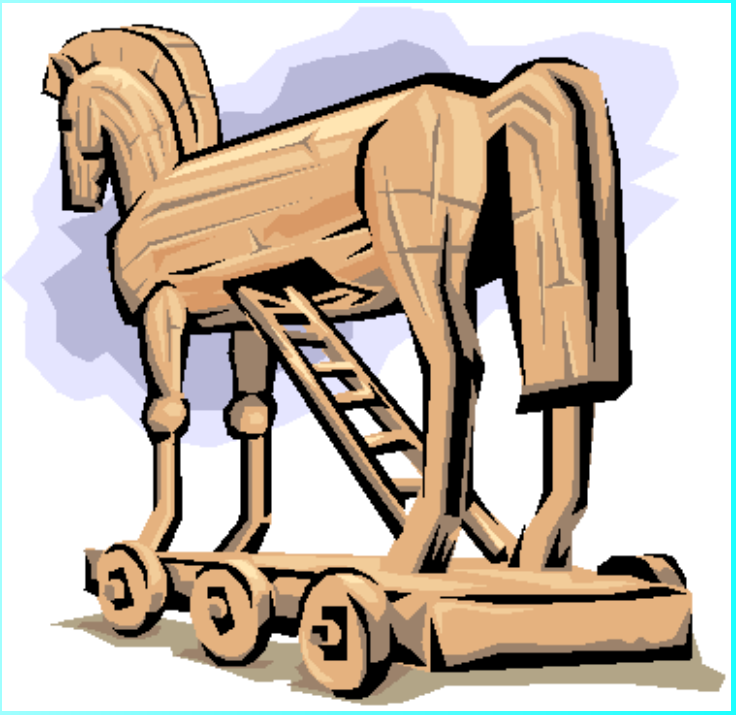


ALLUSION

is a casual reference to a famous historical or literary figure or event.

Examples: If it doesn't stop raining, I'm going to build an ark.

My sister has so many pets I'm going to call myself Old McDonald.



IMAGERY

is when a writer invokes the five senses.

Examples: The smell reminded him of rotting tomatoes.

The fence was uneven, like baby teeth growing awkwardly in. (also a simile!)

IDIOM

is an expression with a meaning different from the literal meaning of the words.

Examples: I got cold feet before my big date = I was scared

My boss gave me the green light = My boss said yes

OXYMORON

is the juxtaposition of two opposite terms.

Examples: a peaceful war
a generous tightwad
dark sunshine

EUPHEMISM

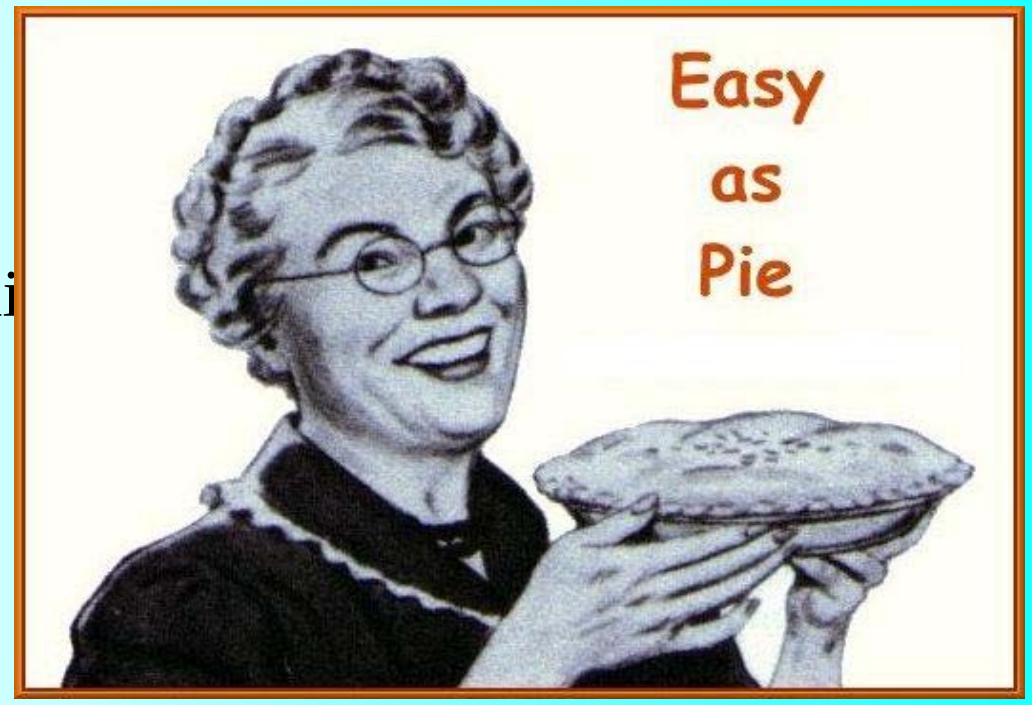
is a polite word or phrase used in place of one that may be too direct, unpleasant, or embarrassing.

Examples: pass away = die
vertically challenged = short

CLICHÉ

is an expression that has lost its power or originality from overuse.

Examples: talking a mi
quiet as a mouse
easy as pie



PUN

is a humorous play on words, often involving double meanings

Examples: There was a shootout in the Gap. There were many casual-tees.

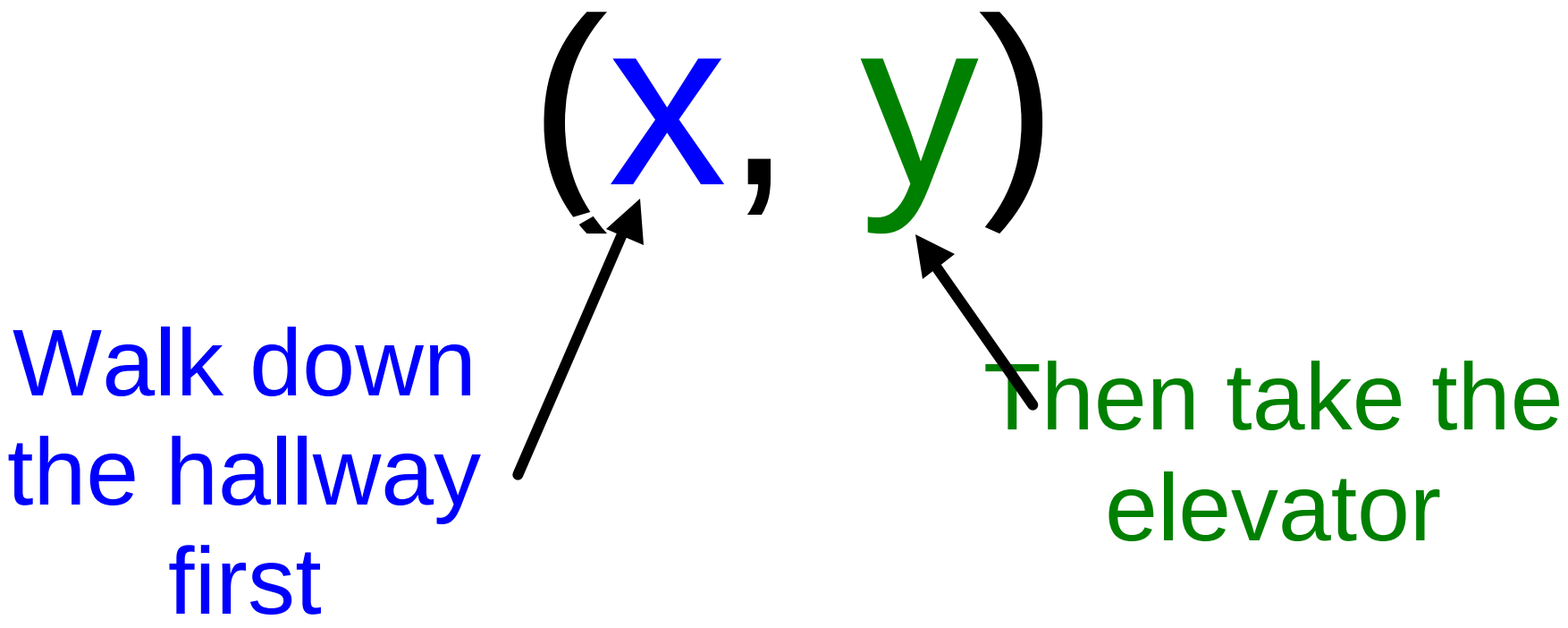
A man stole a case of soap from the corner store. He made a clean getaway.

5+2=7 and 7-2=5

INVERSE OPERATIONS

4x3=12 and 12÷3=4

ORDERED PAIRS



Commutative Property

$$5 + 7 = 7 + 5$$

$$5 \times 7 = 7 \times 5$$

Associative Property

$$4+(2+7)=(4+2)+7$$

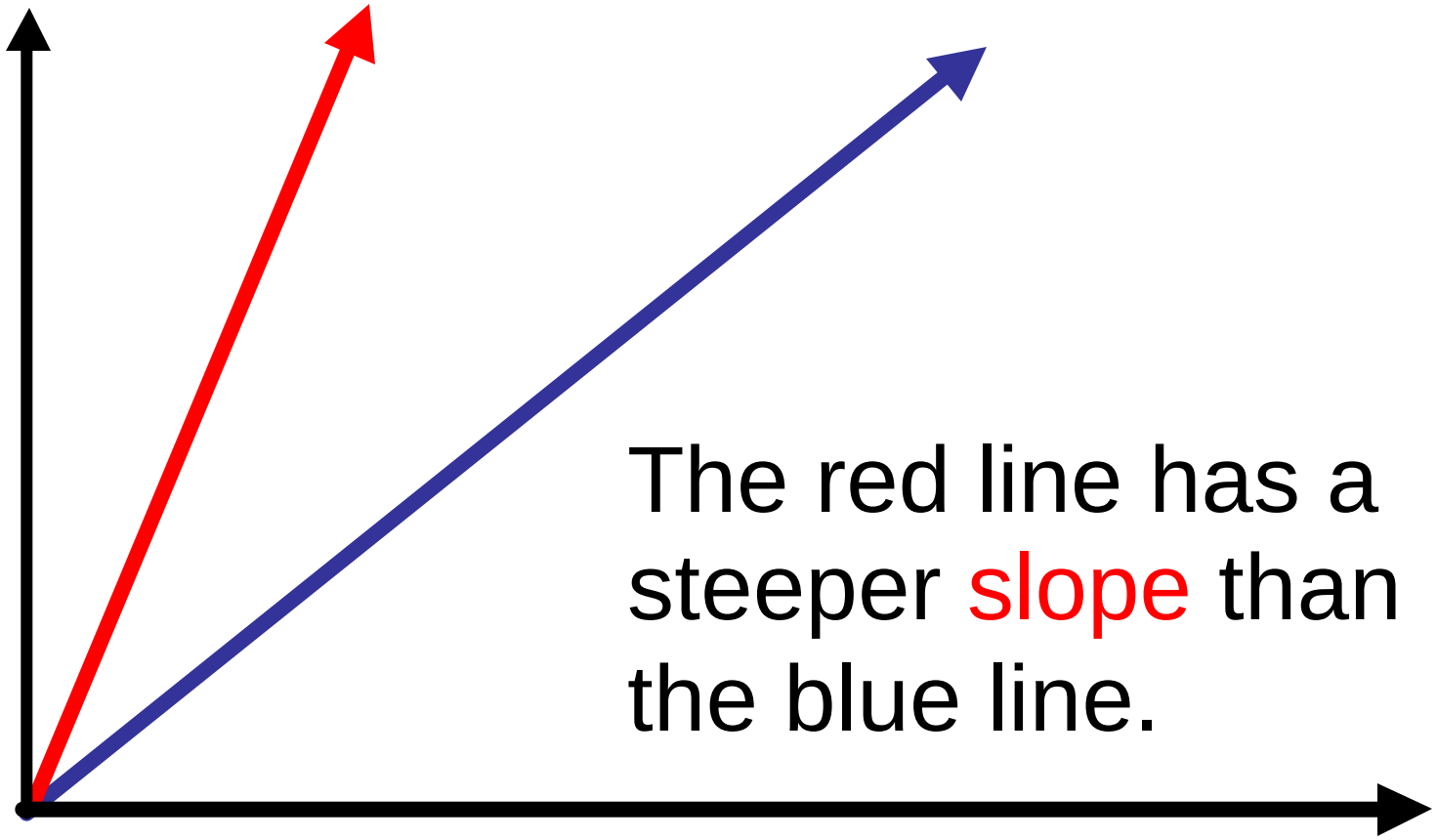
$$3^{x}(5^{x}9)=(3^{x}5)^{x}9$$

Distributive Property

$5(2+6)=5(2)+5(6)$

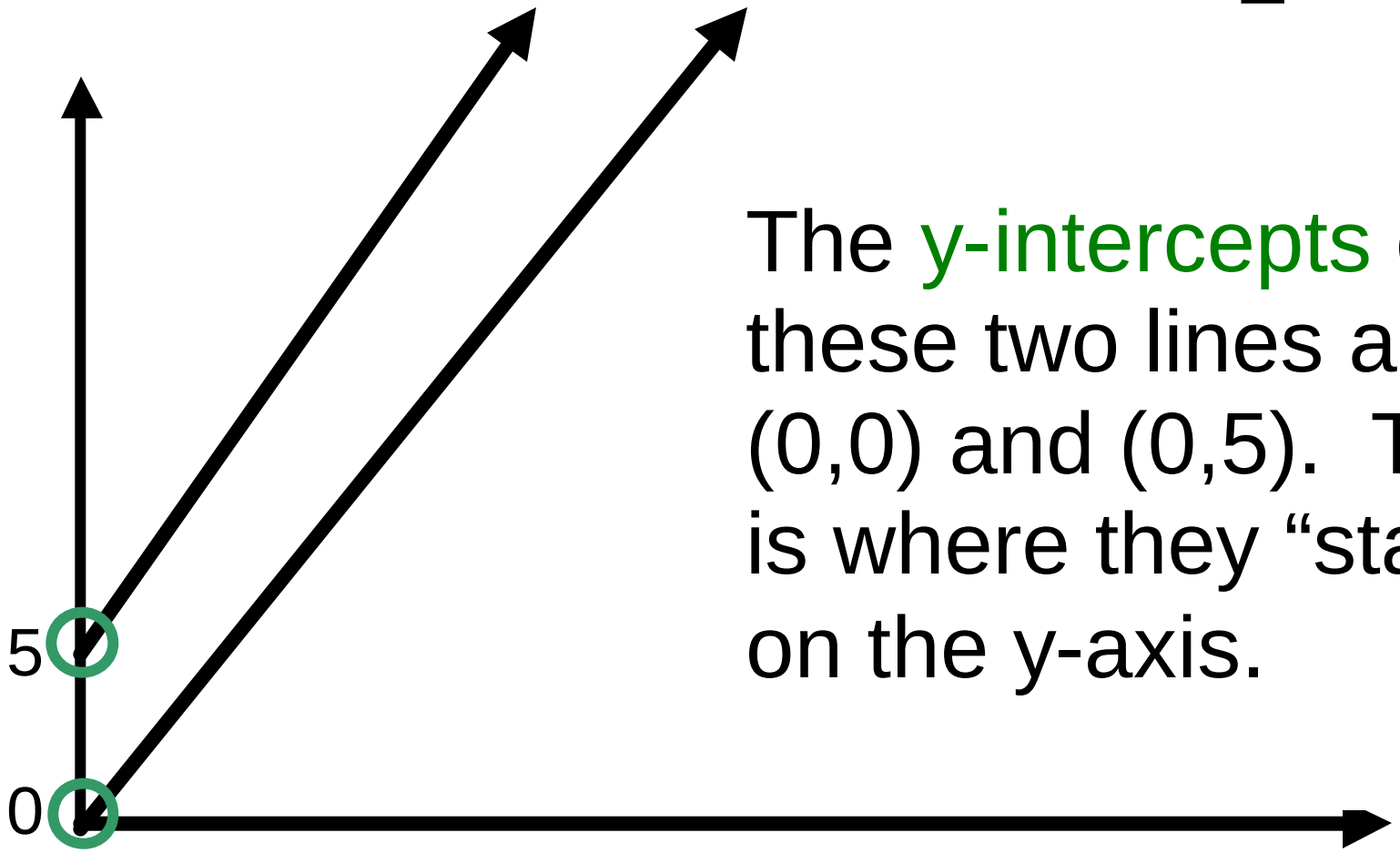
$3x8+4x8 = (3+4)x8$

Slope



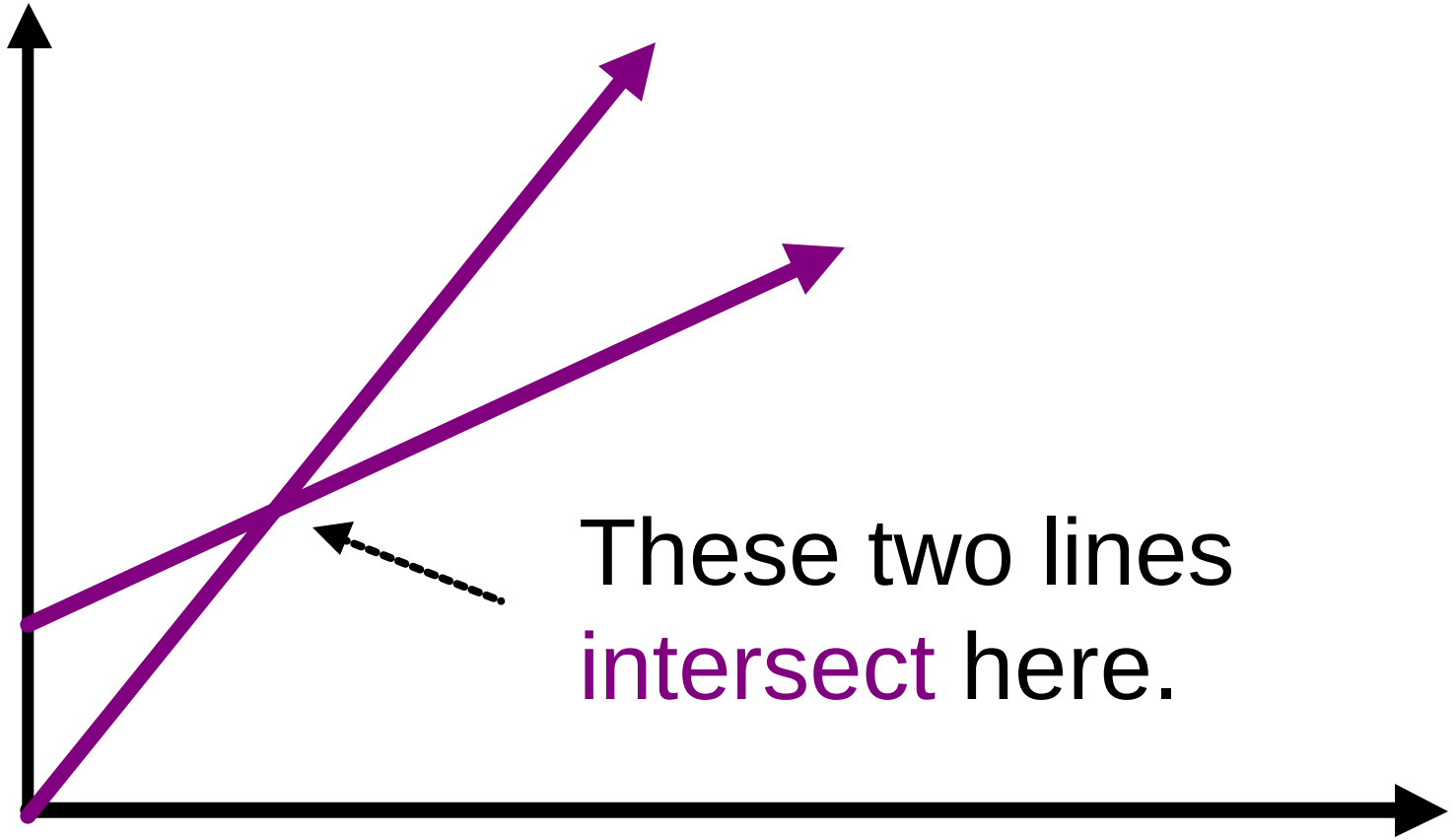
The red line has a steeper slope than the blue line.

Y-Intercept



The y-intercepts of these two lines are (0,0) and (0,5). This is where they “start” on the y-axis.

Intersect



Coefficient

$y = 5x + 2$

Constant

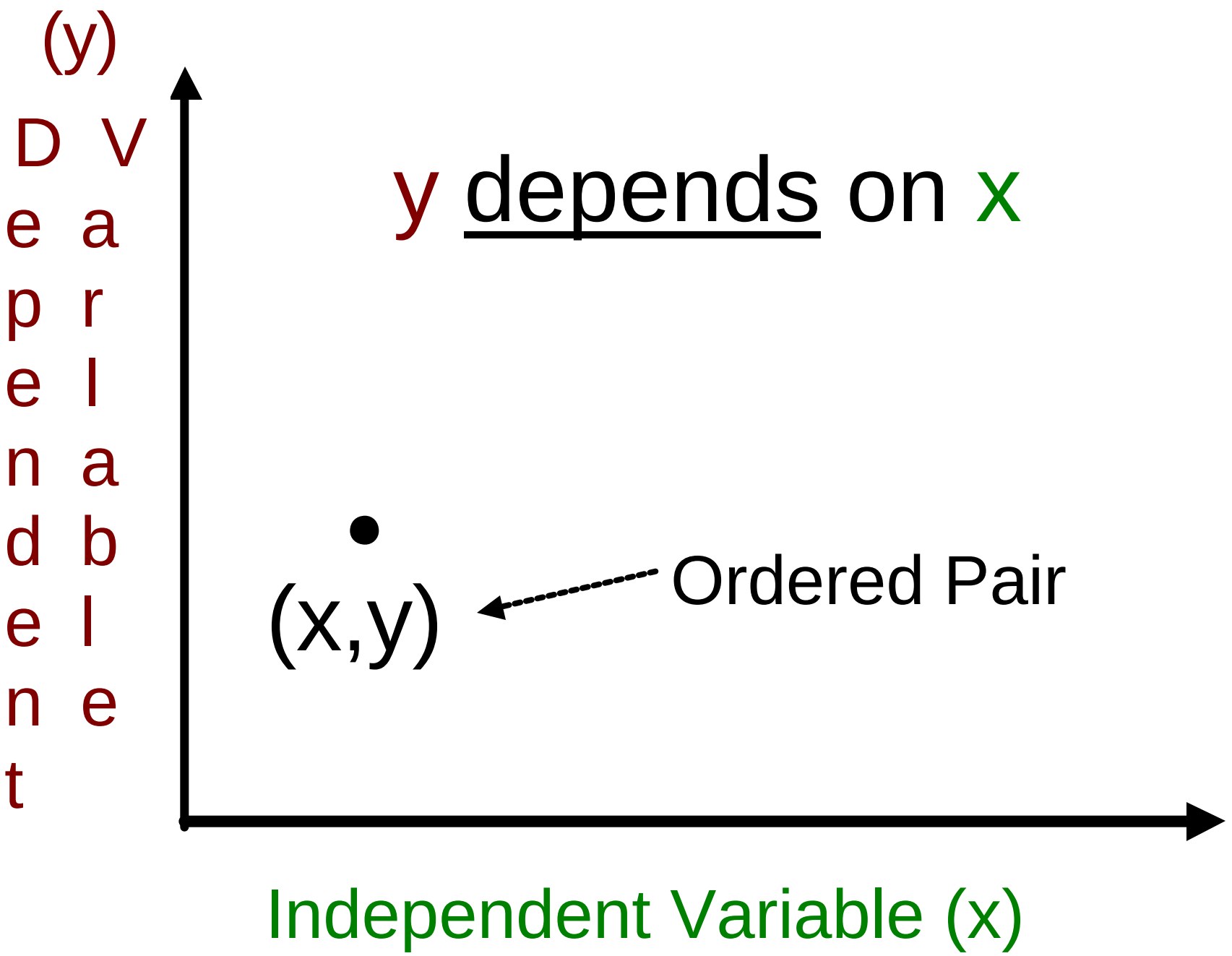
Independent Variable

$y = 5x + 2$

Dependent

Variable

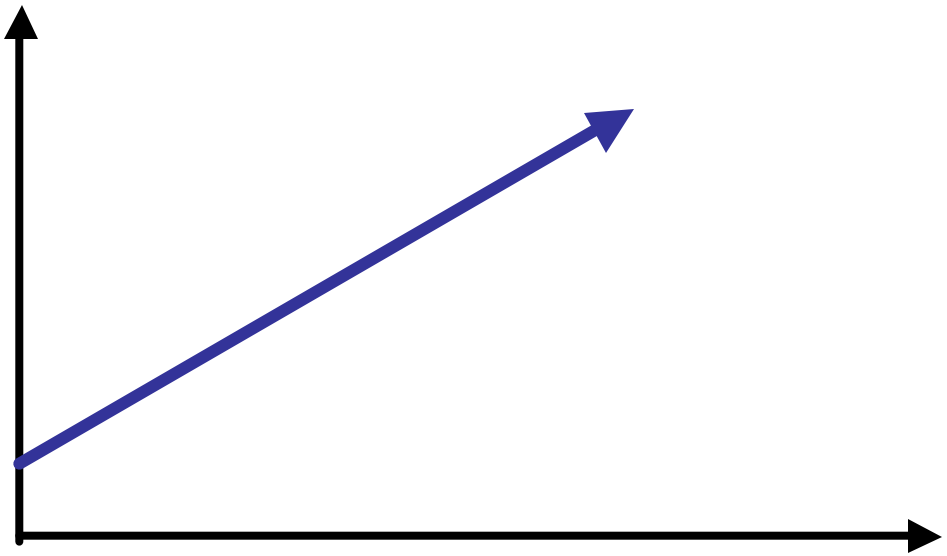
$y = 5x + 2$


(y)
Dependent Variable
y depends on x
(x,y)
Ordered Pair
Independent Variable (x)

Function

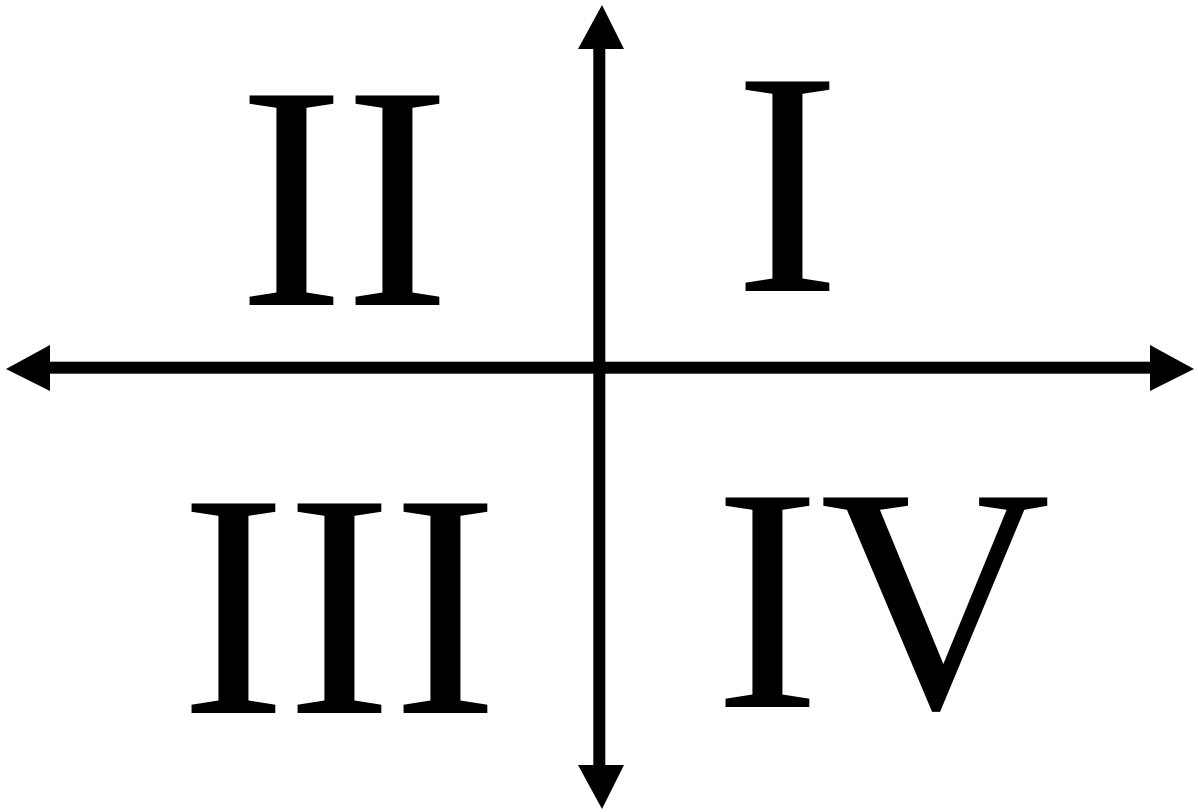
x	y
0	2
1	6
2	10
3	14
4	18
5	22
6	26
7	30

$$Y = 4x + 2$$

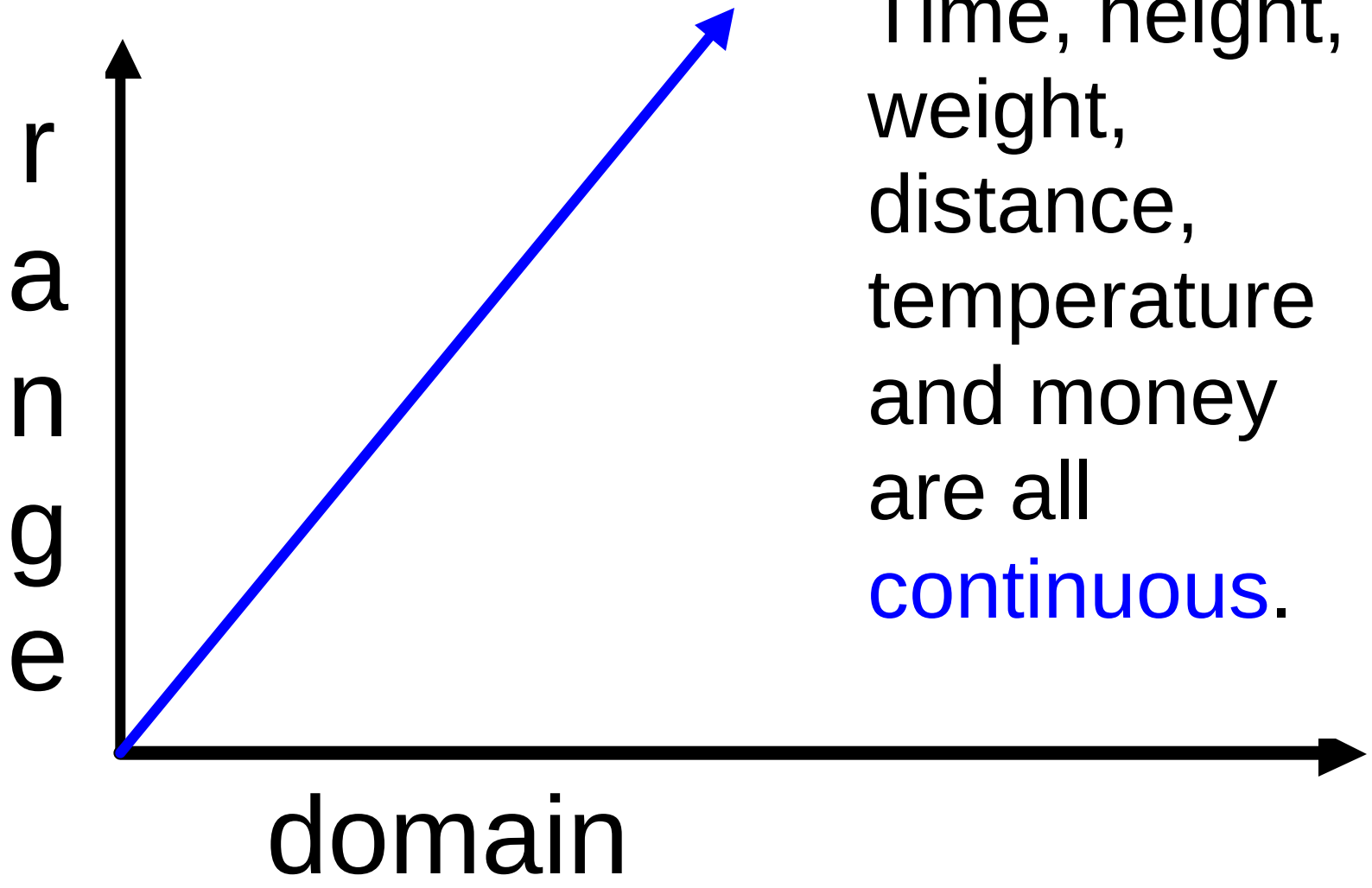


Origin

Coordinate Graphing

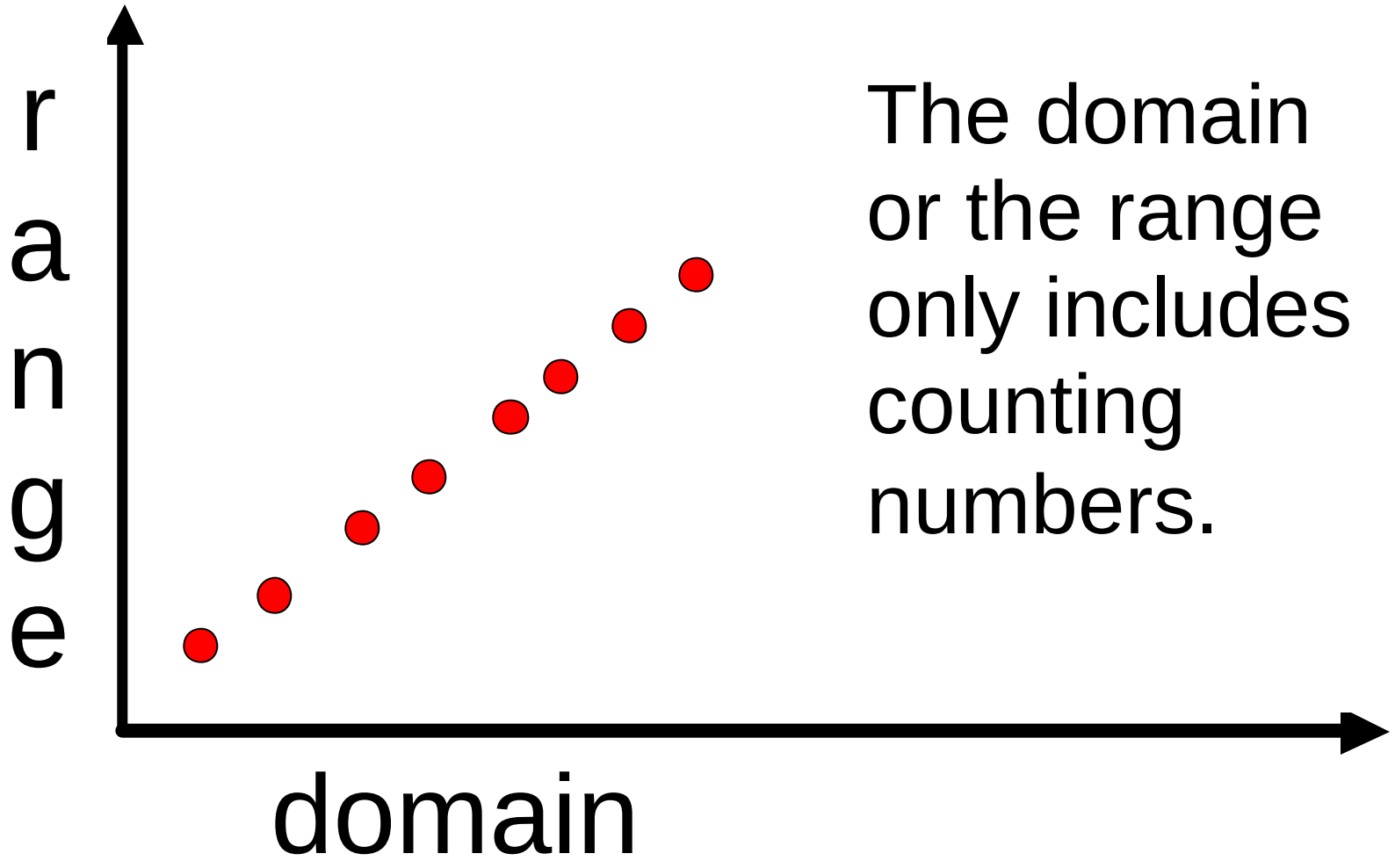


Continuous

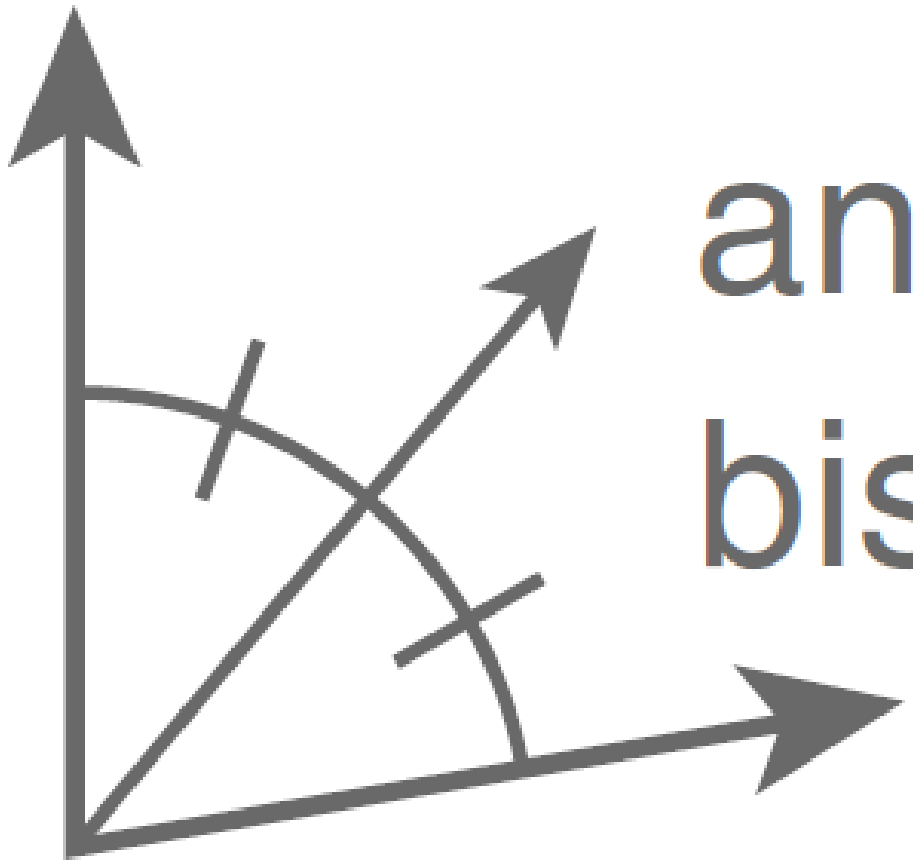


Time, height, weight, distance, temperature and money are all continuous.

Discrete Data

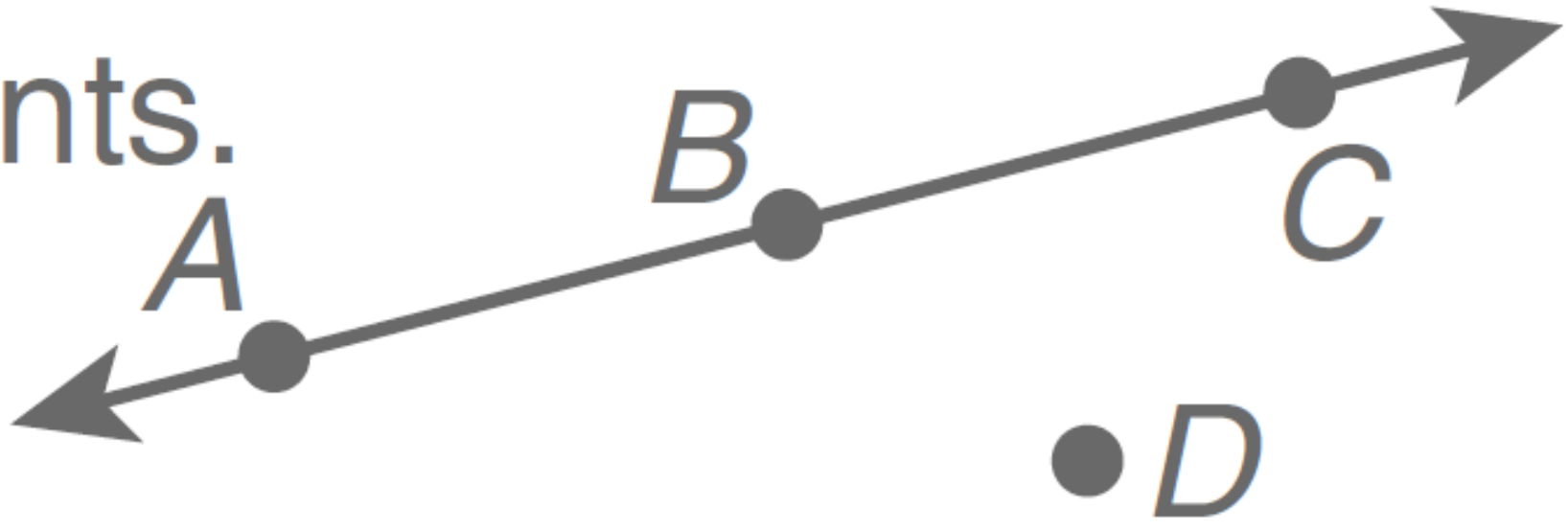


The domain or the range only includes counting numbers.

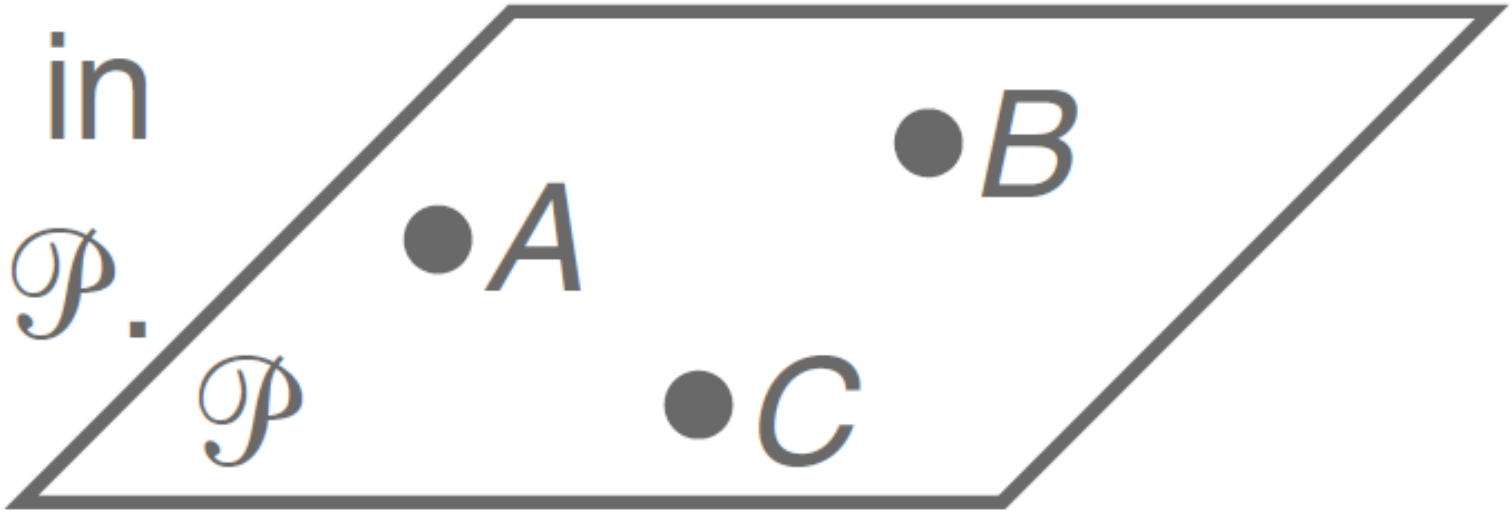


angle bisector

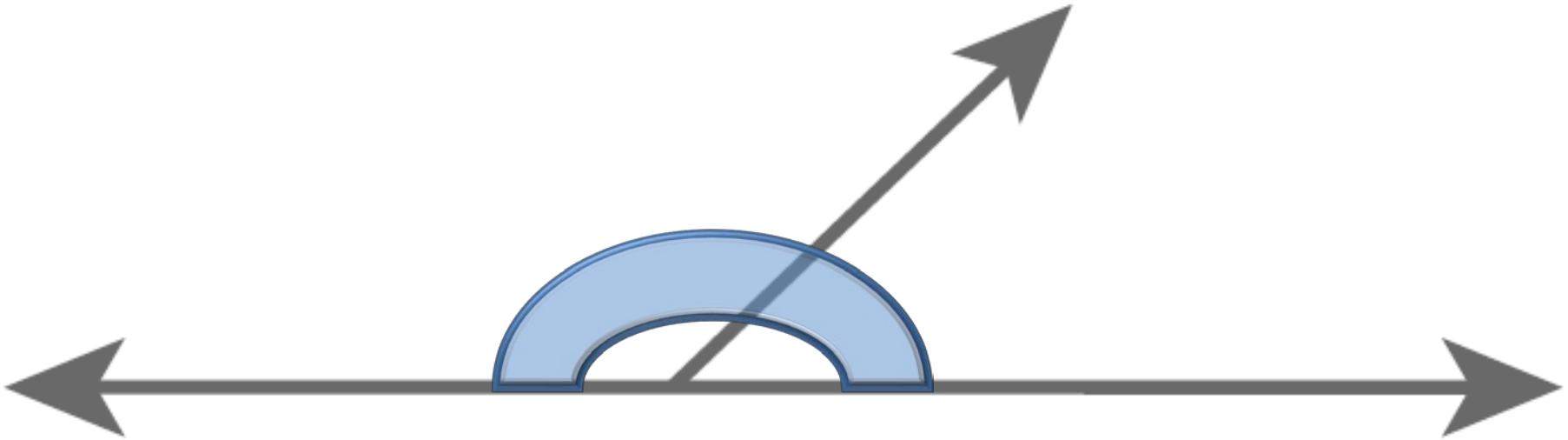
A, *B*, and *C* are collinear points.



A, B, and C are coplanar points in plane $\mathscr{P}$.

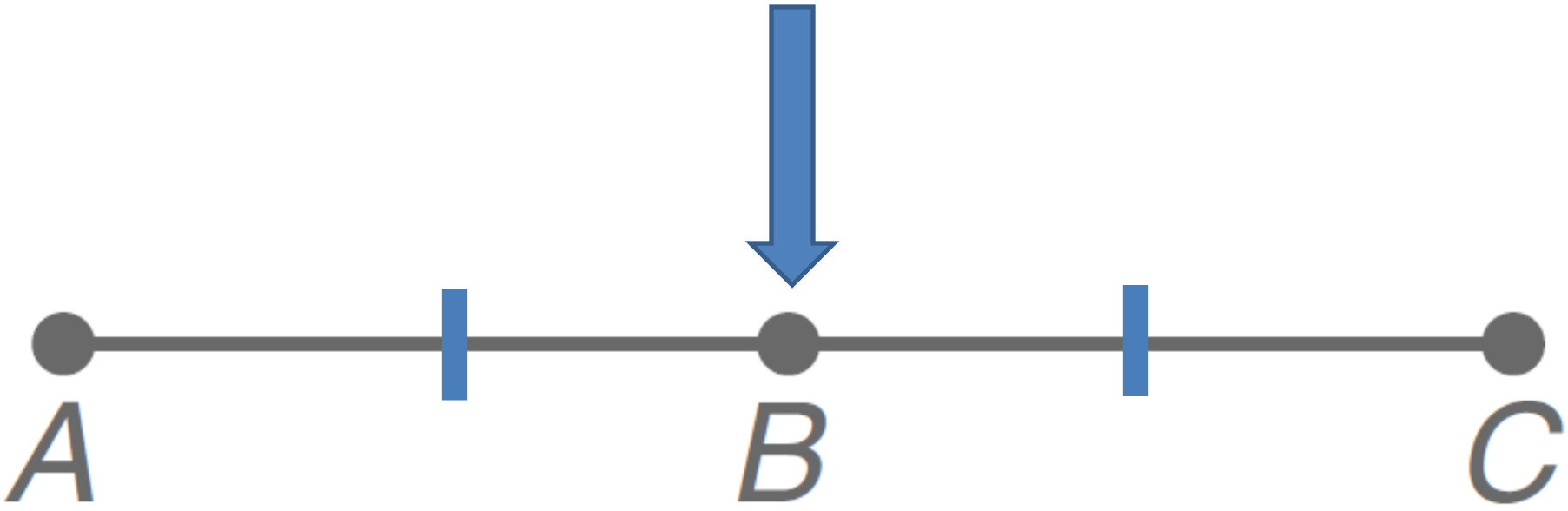


LINEAR PAIR

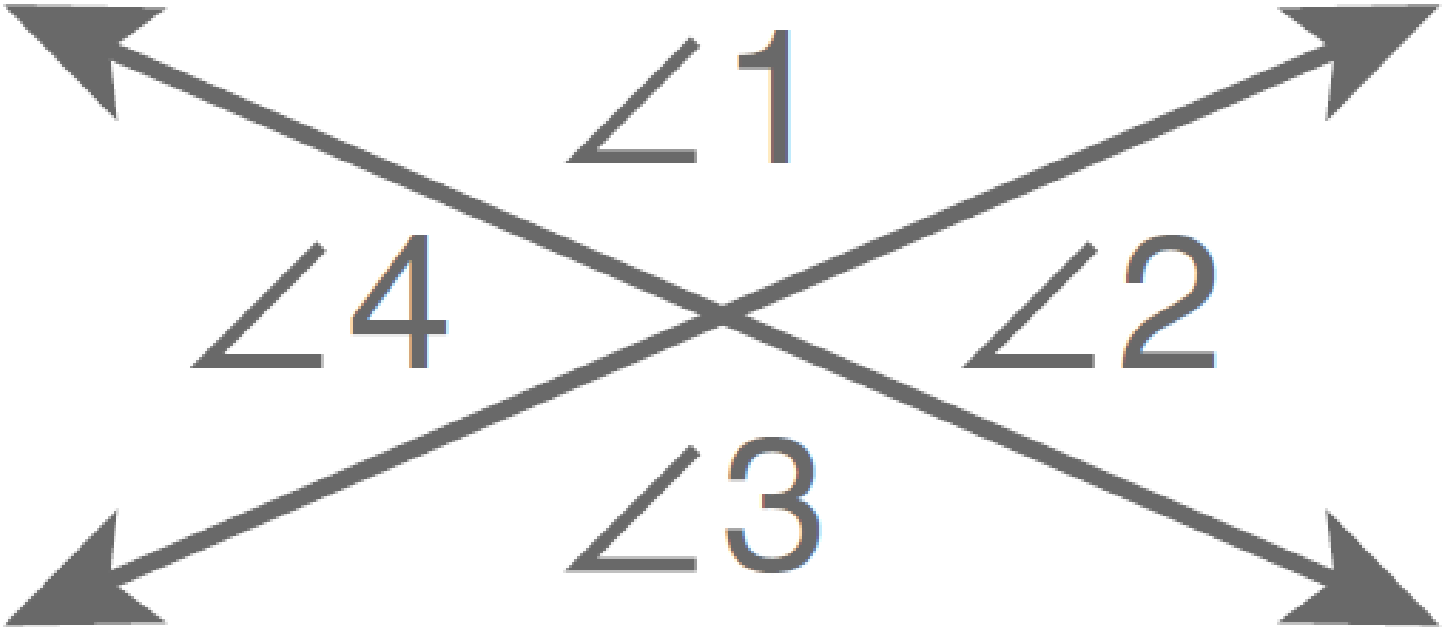


SUPPLEMENTARY

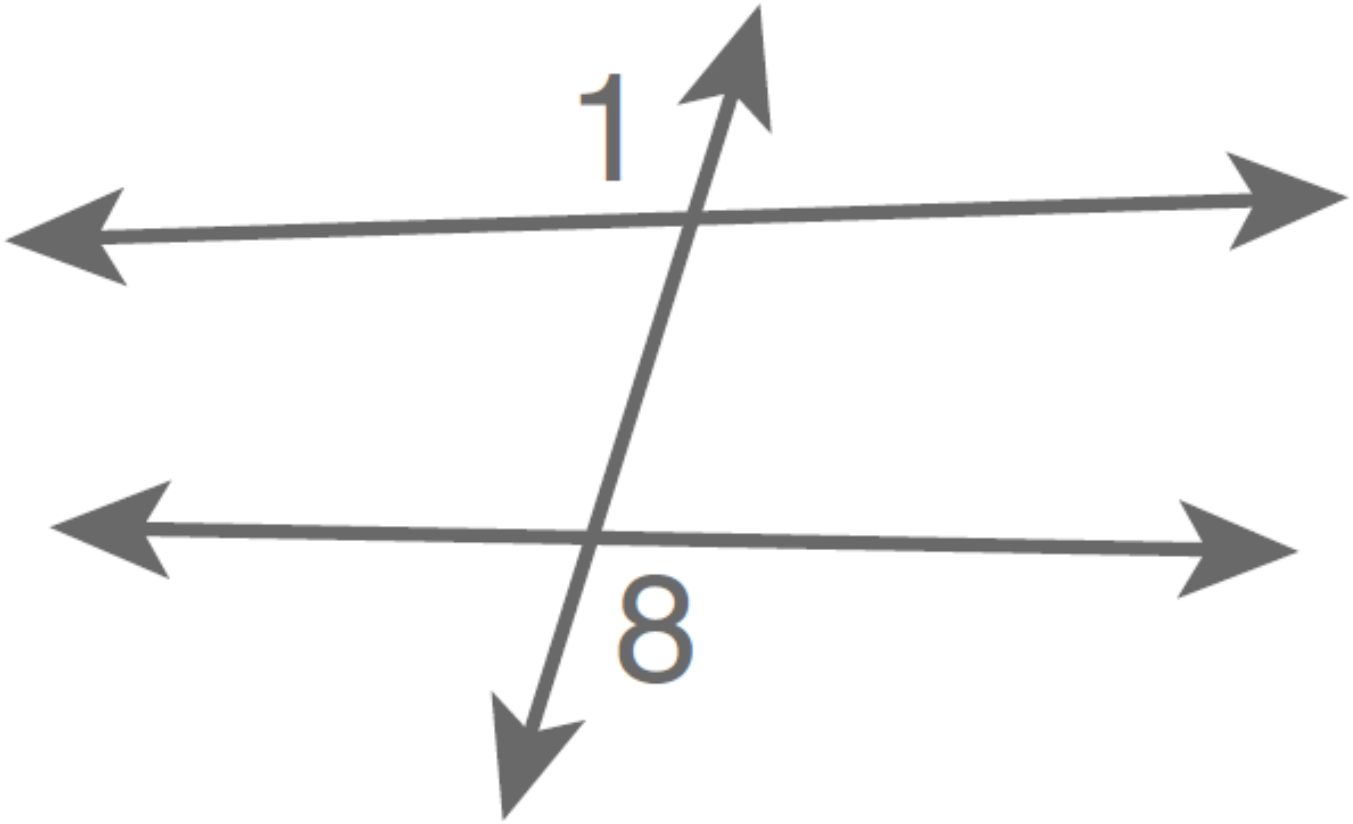
MIDPOINT



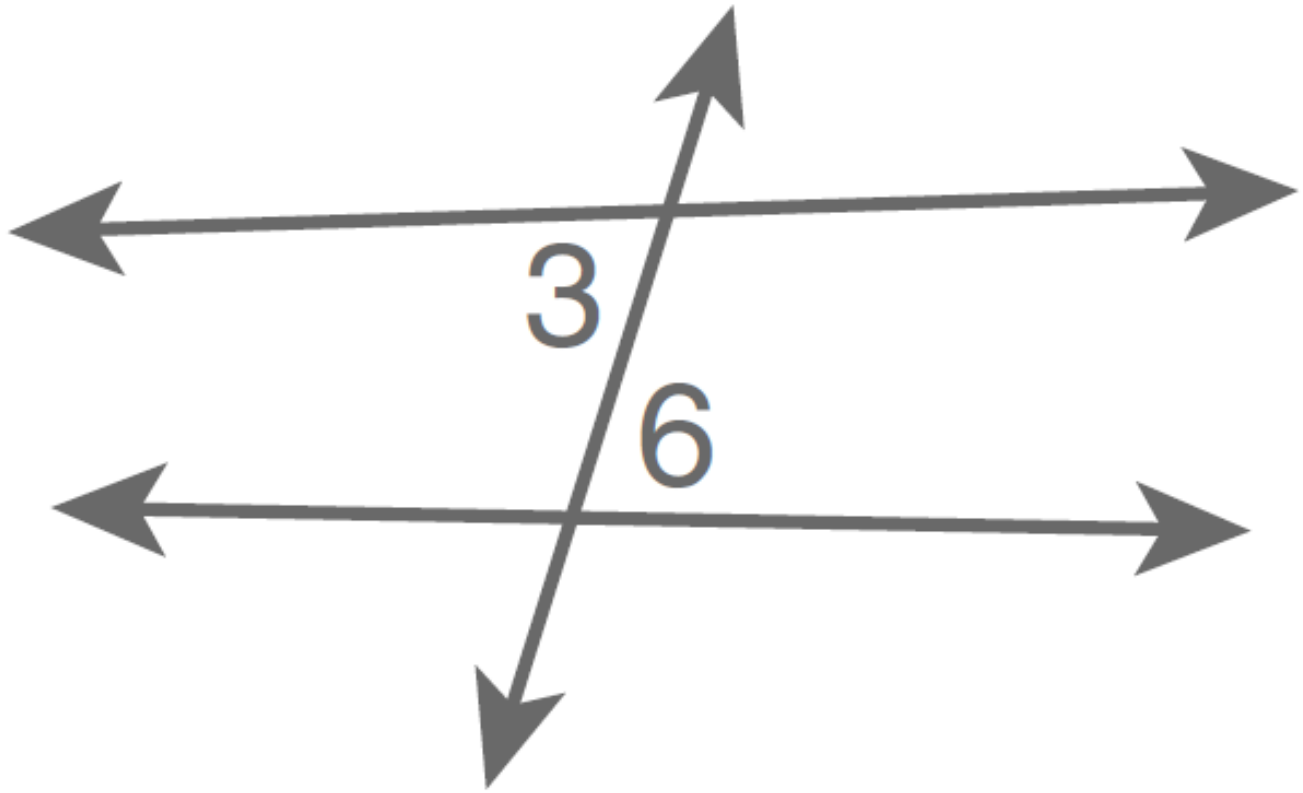
VERTICAL ANGLES



CONGRUENT ANGLES

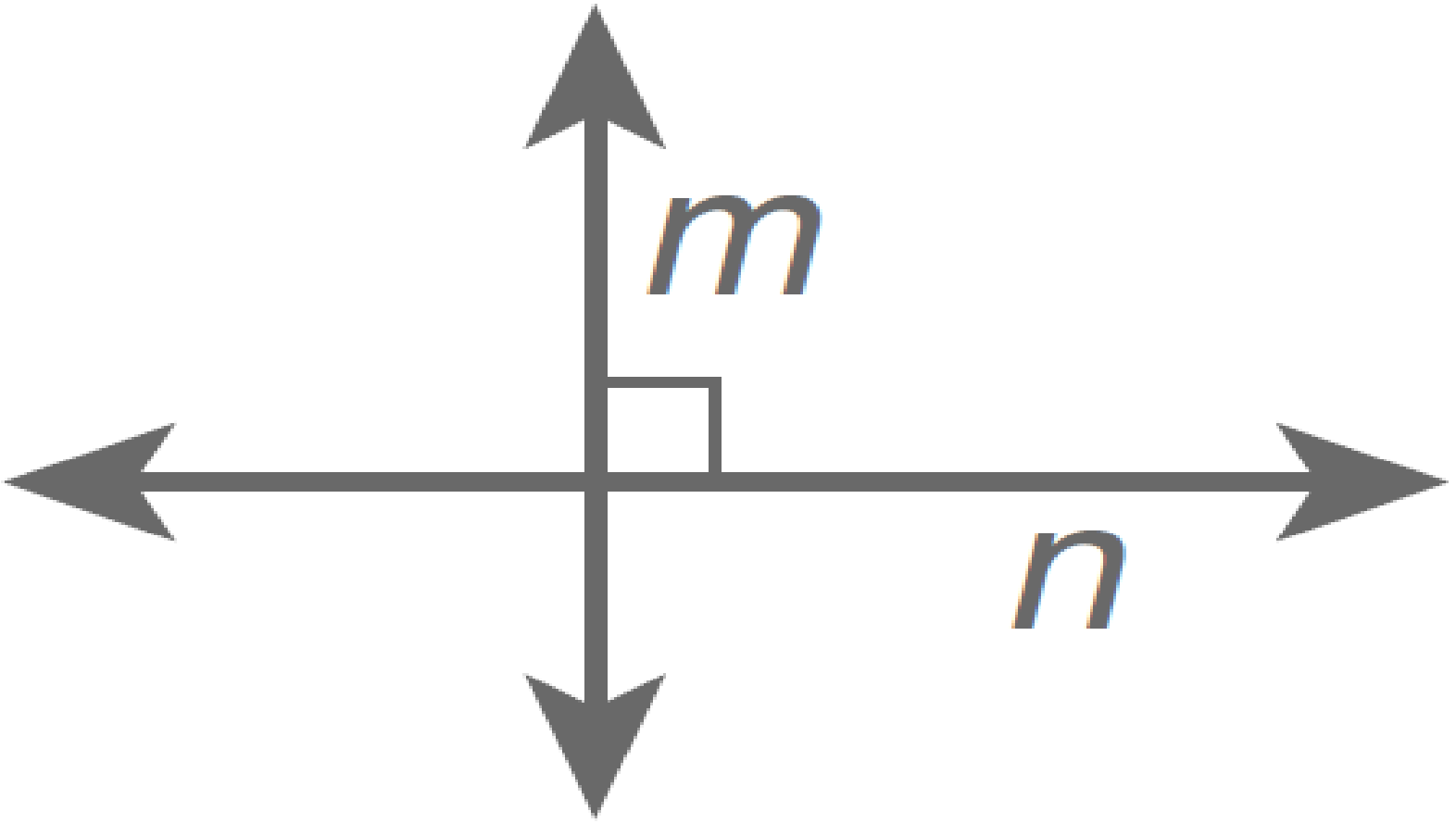


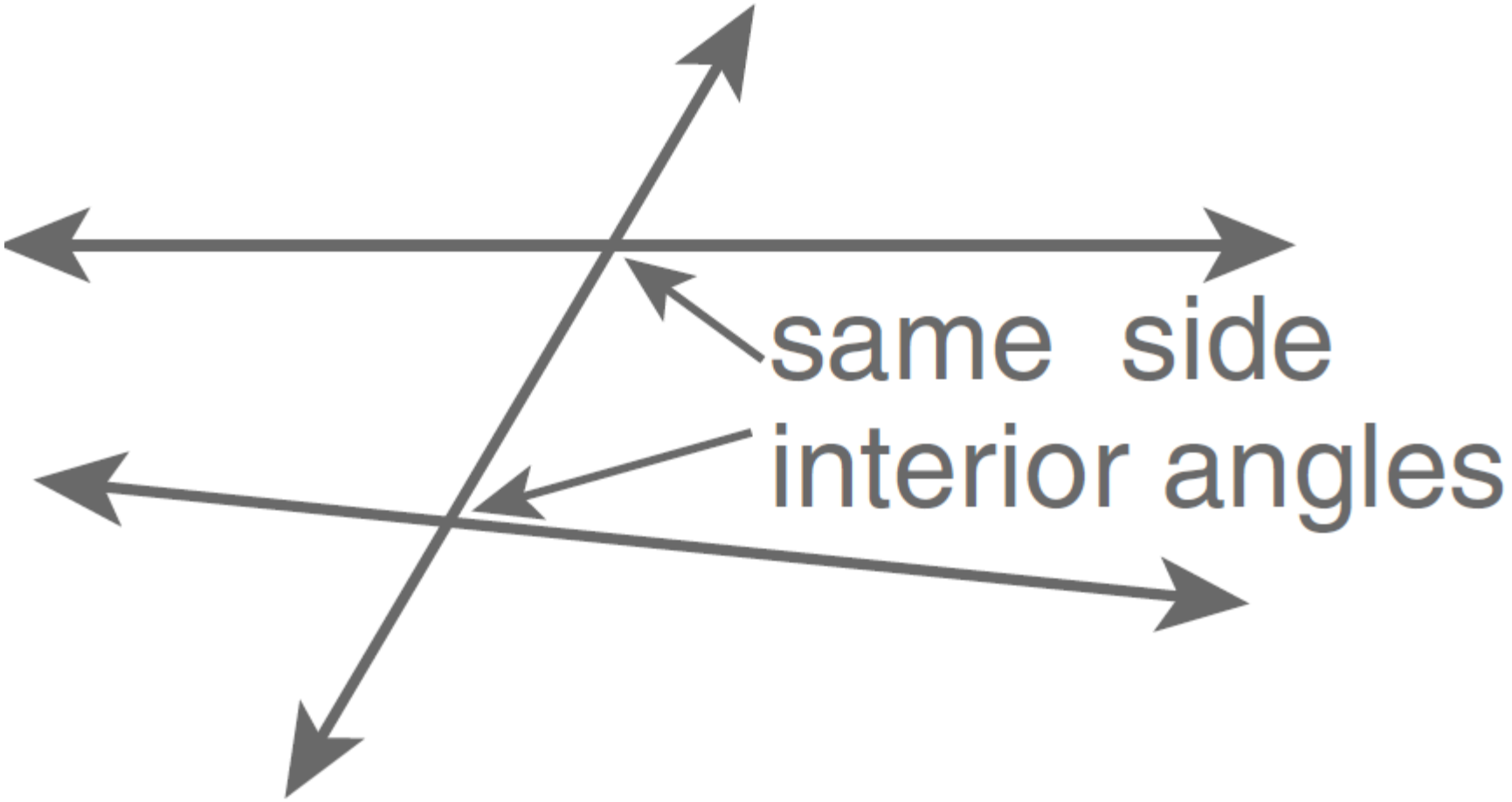
∠1 and ∠8 are alternate exterior angles



$\angle 3$ and $\angle 6$ are alternate interior angles

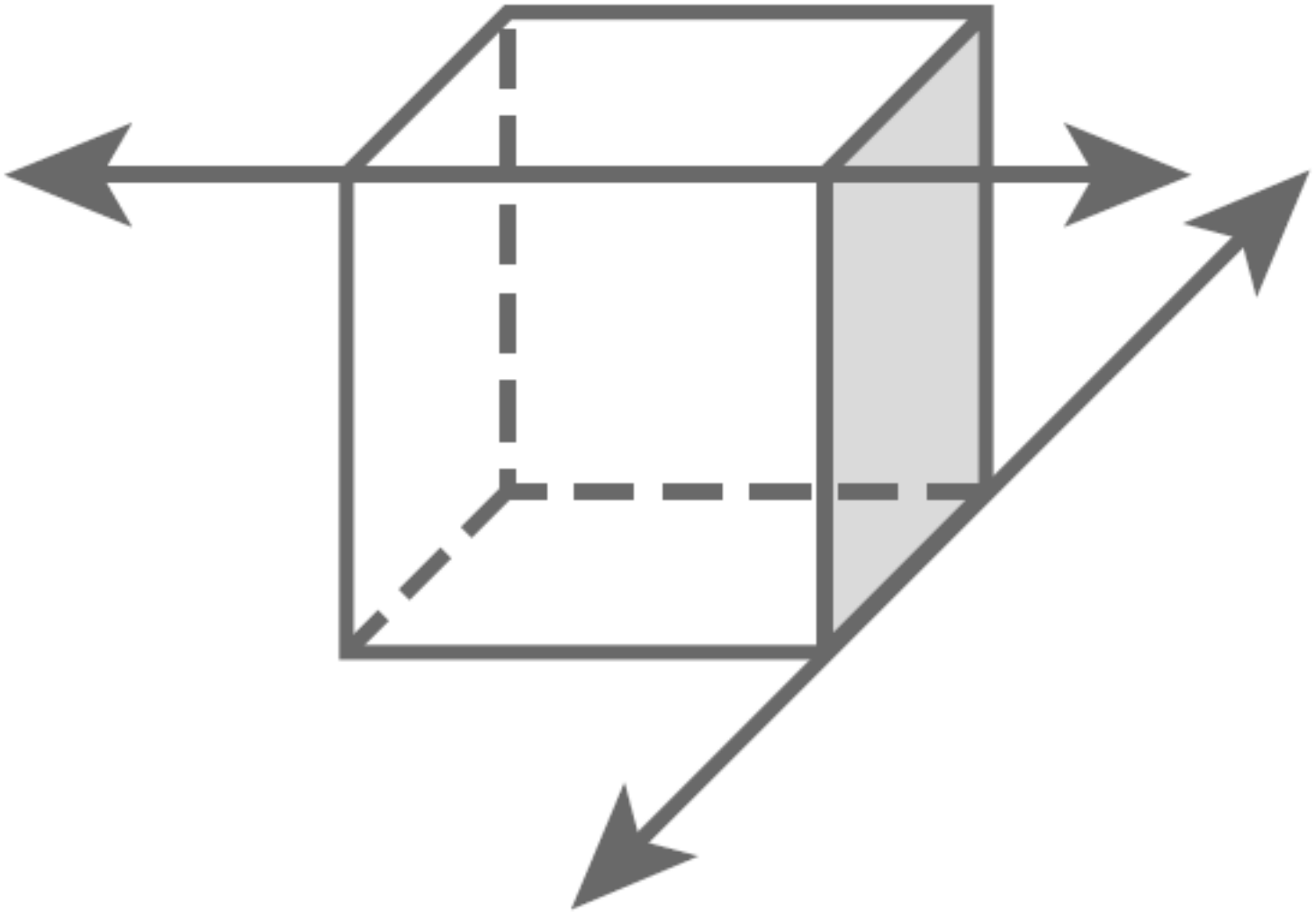
PERPENDICULAR LINES





SUPPLEMENTARY

skew lines



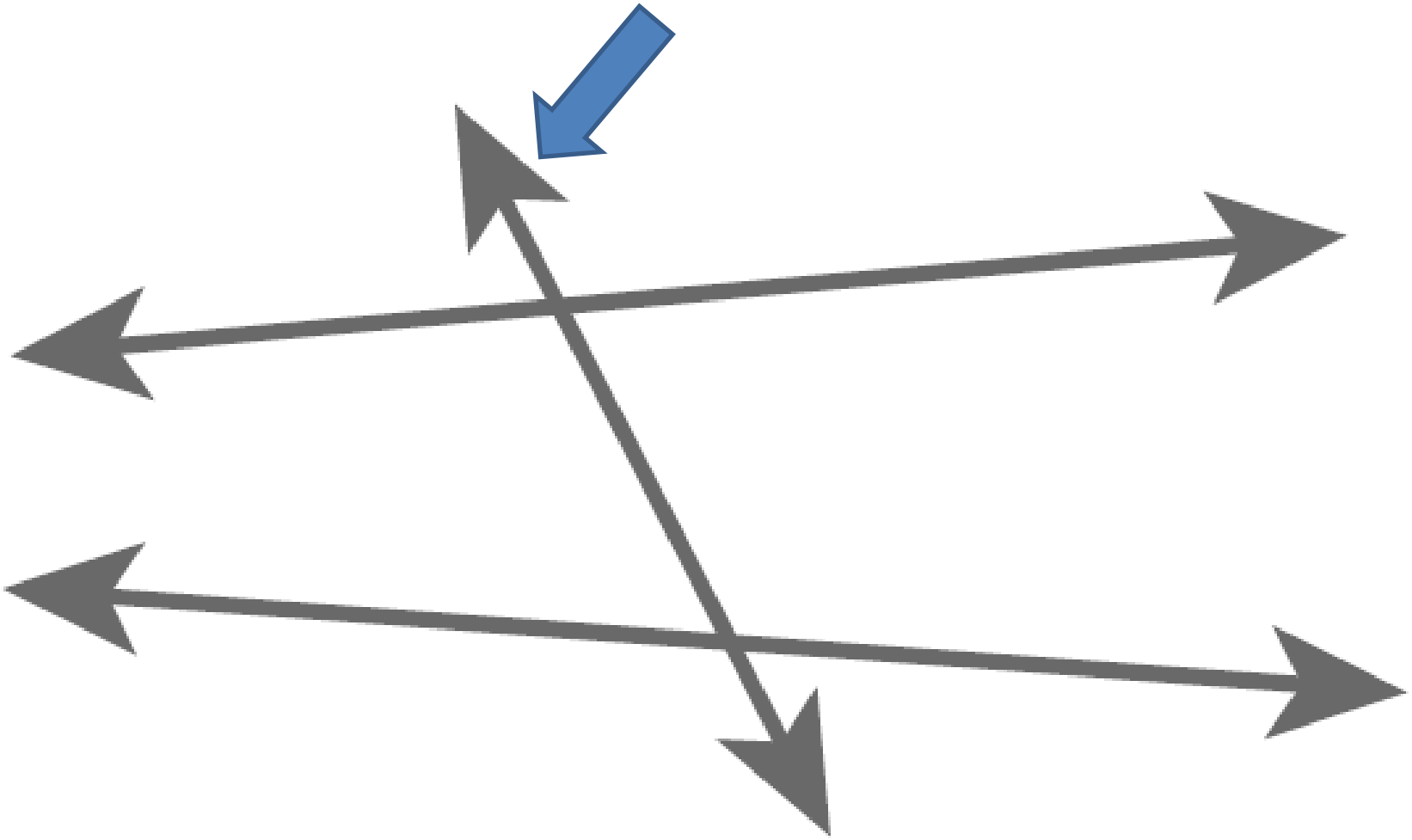
$y = \mathbf{-2}x + \mathbf{4}$

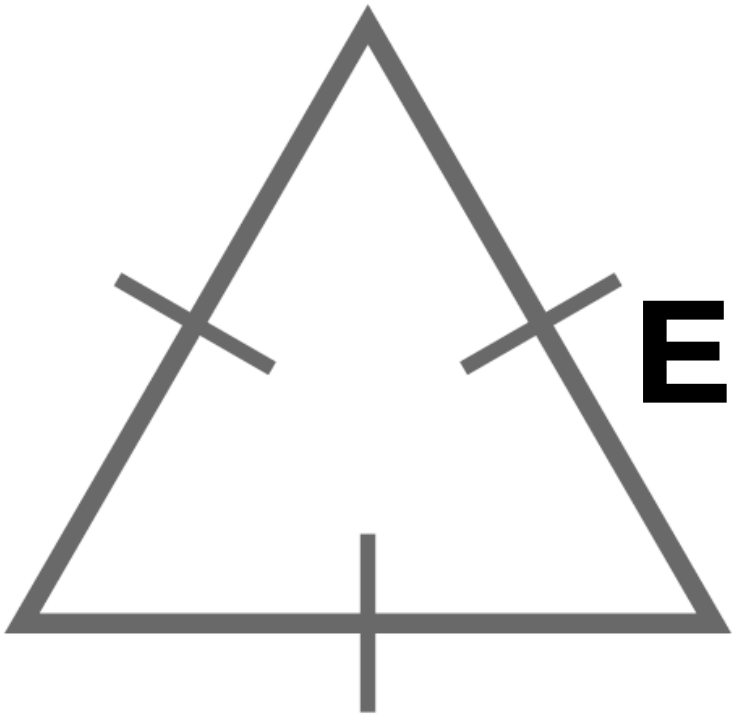
The ***Slope*** is

-2

The ***y-intercept*** is 4

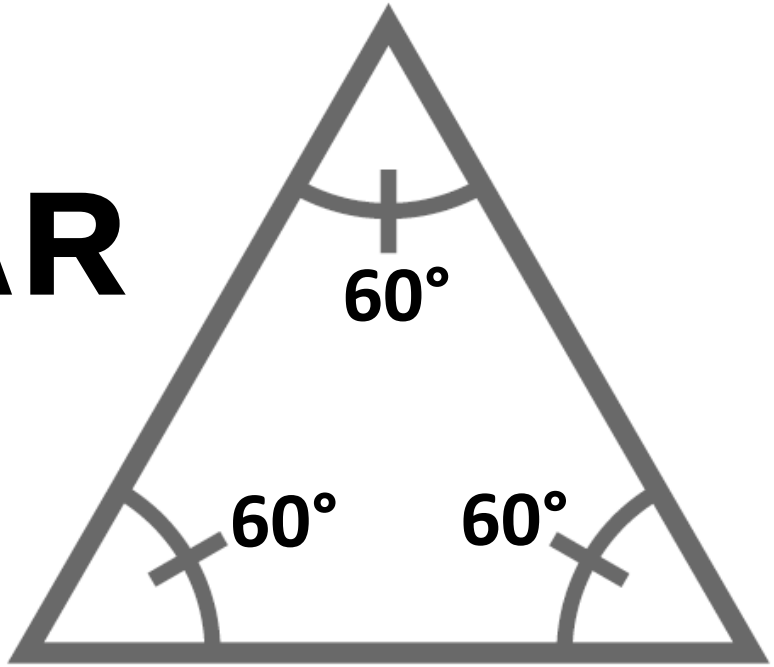
TRANSVERSAL

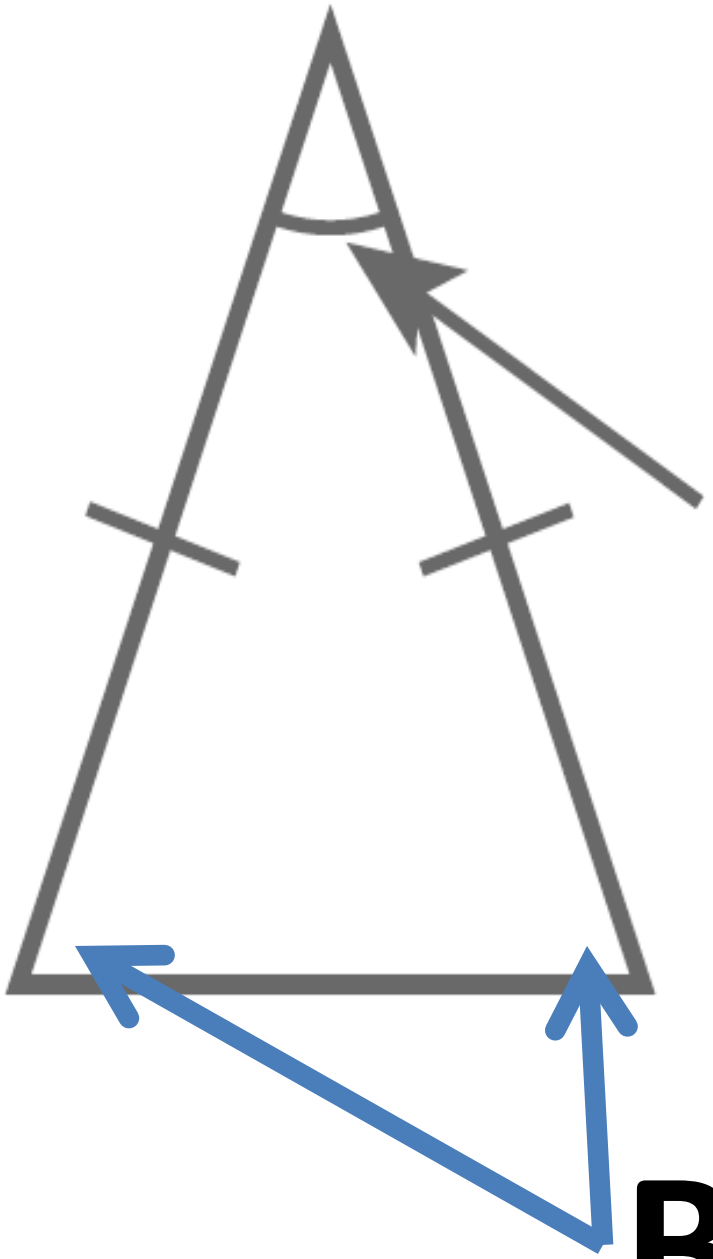




EQUILATERAL

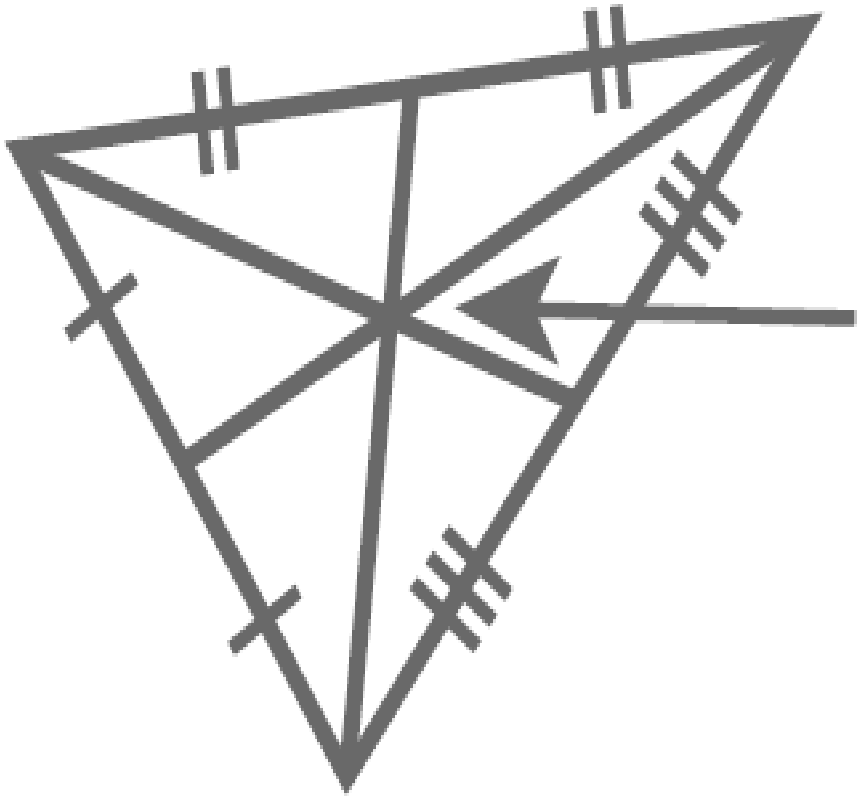
EQUIANGULAR





Vertex angle

Base Angles



centroid of
a triangle

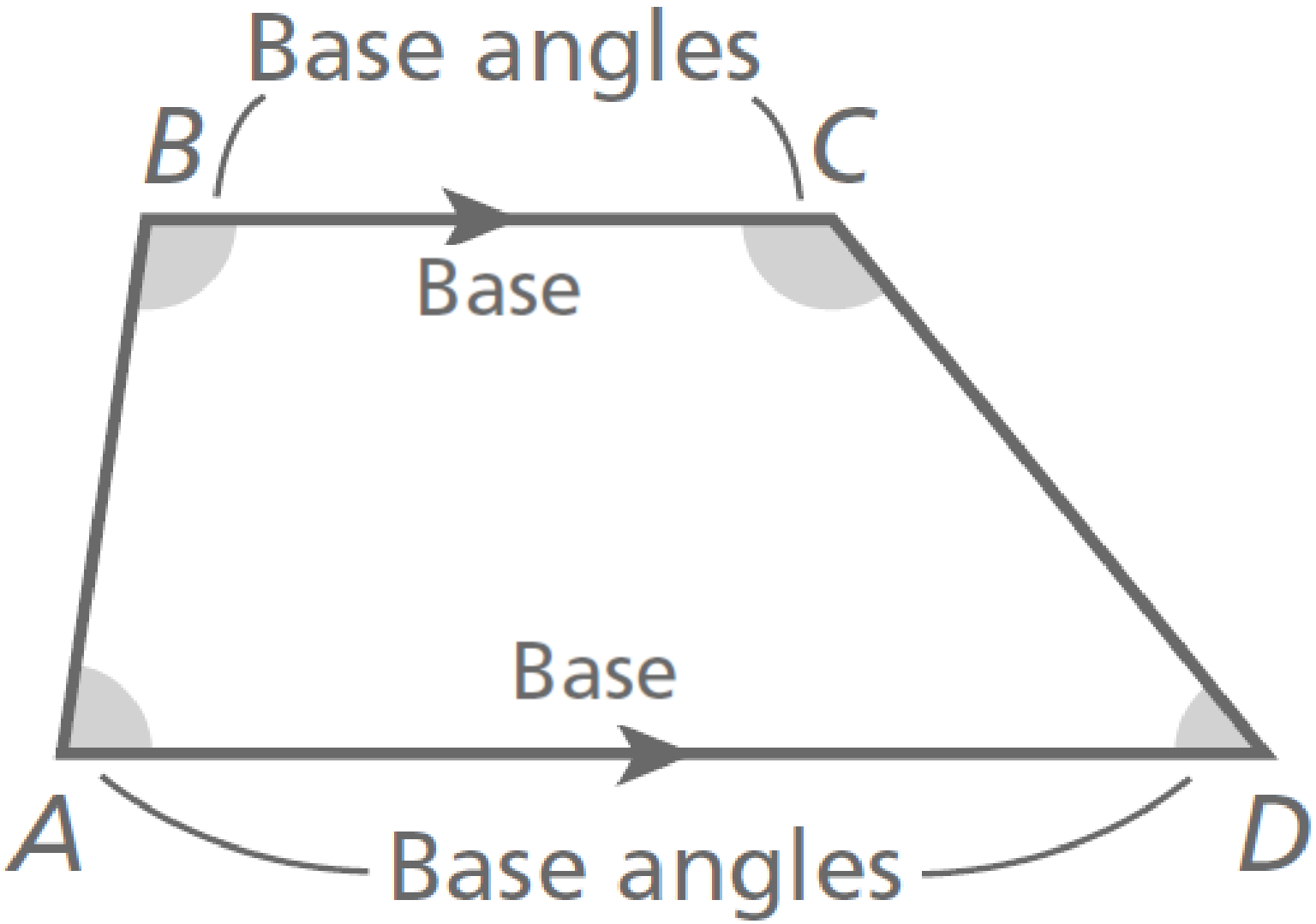
Pythagorean triple

$a = 3, b = 4, c = 5$

$3^2 + 4^2 = 5^2$

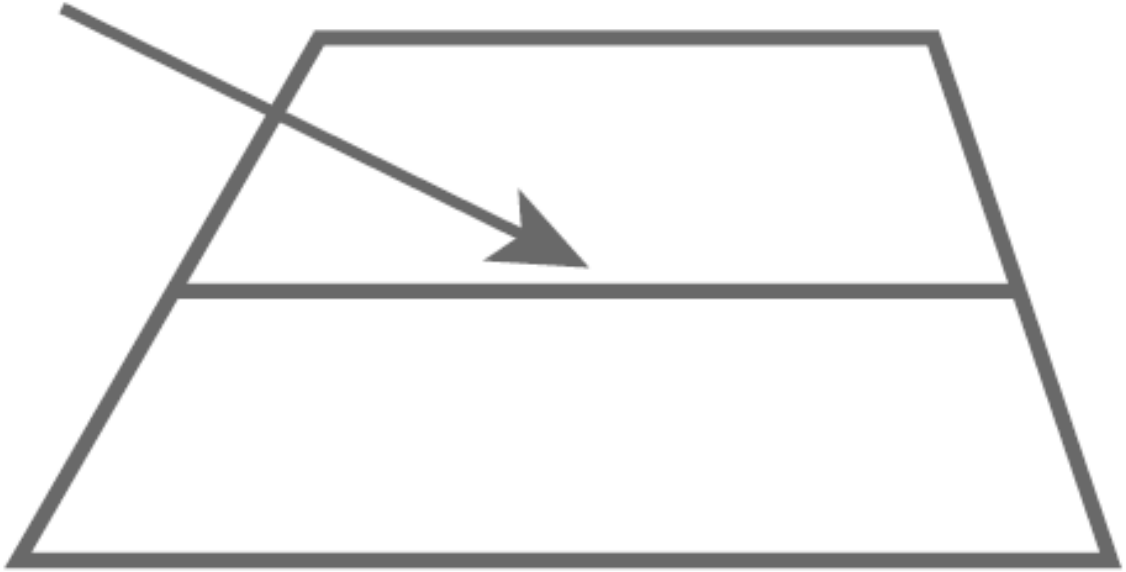
$9 + 16 = 25$

TRAPEZOID

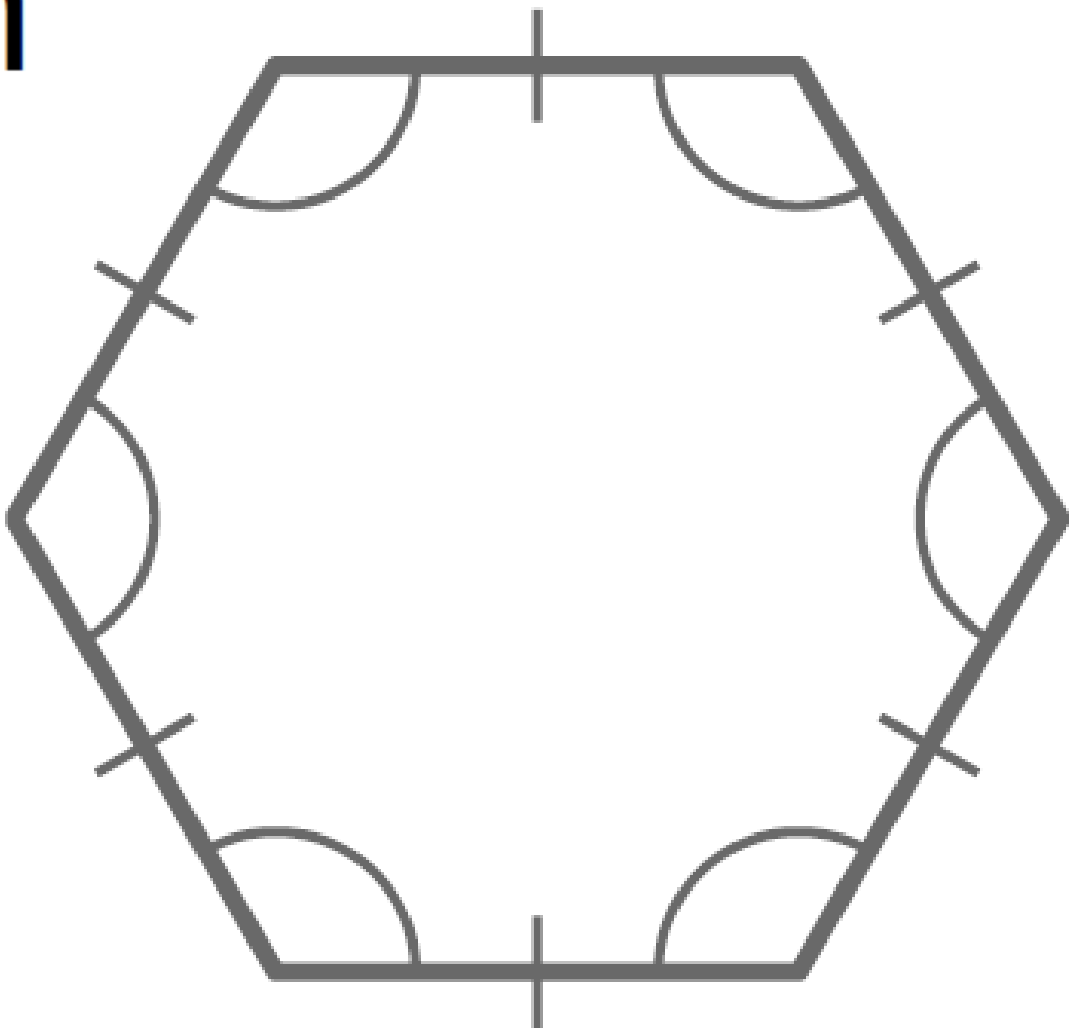


isosceles trapezoid

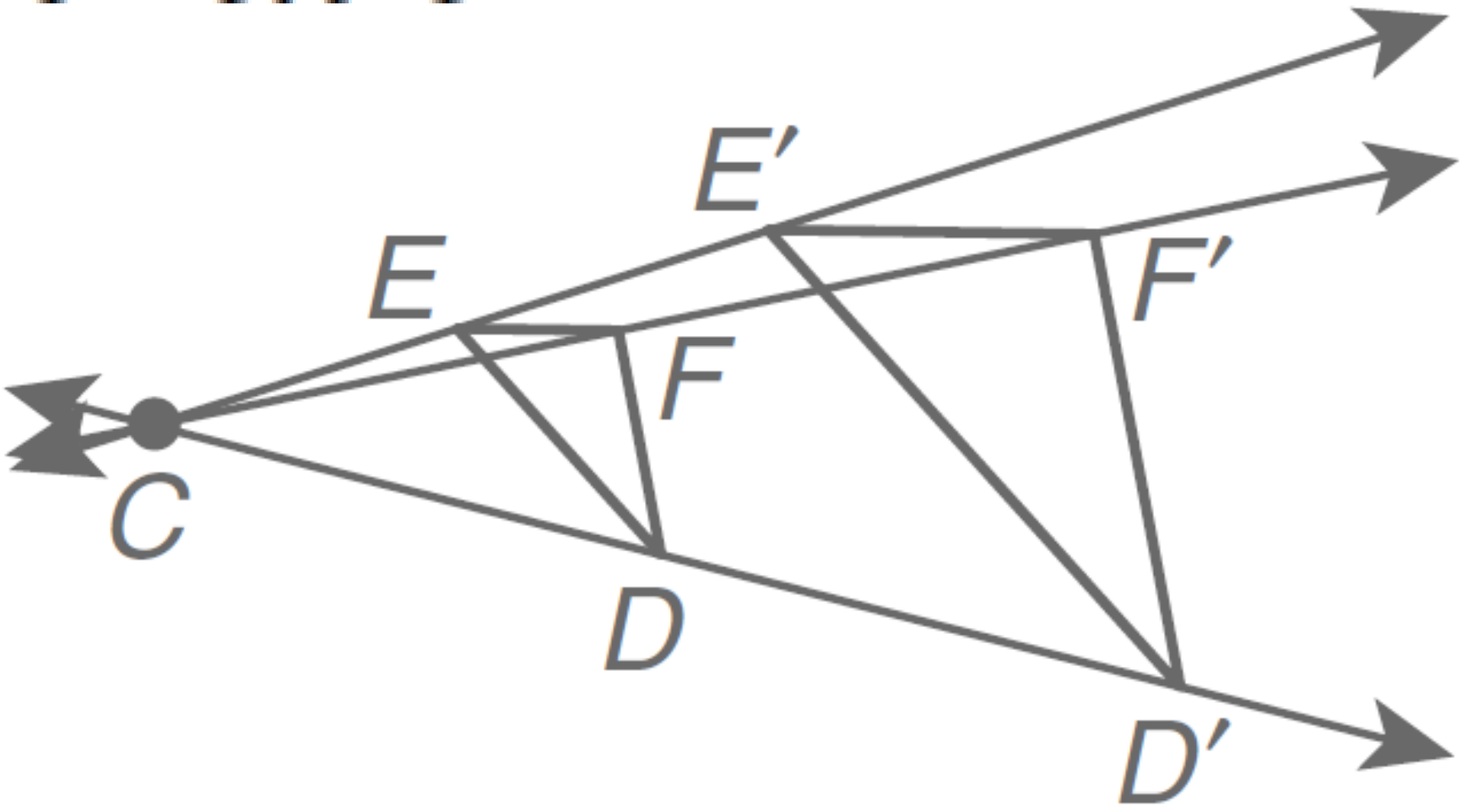
midsegment

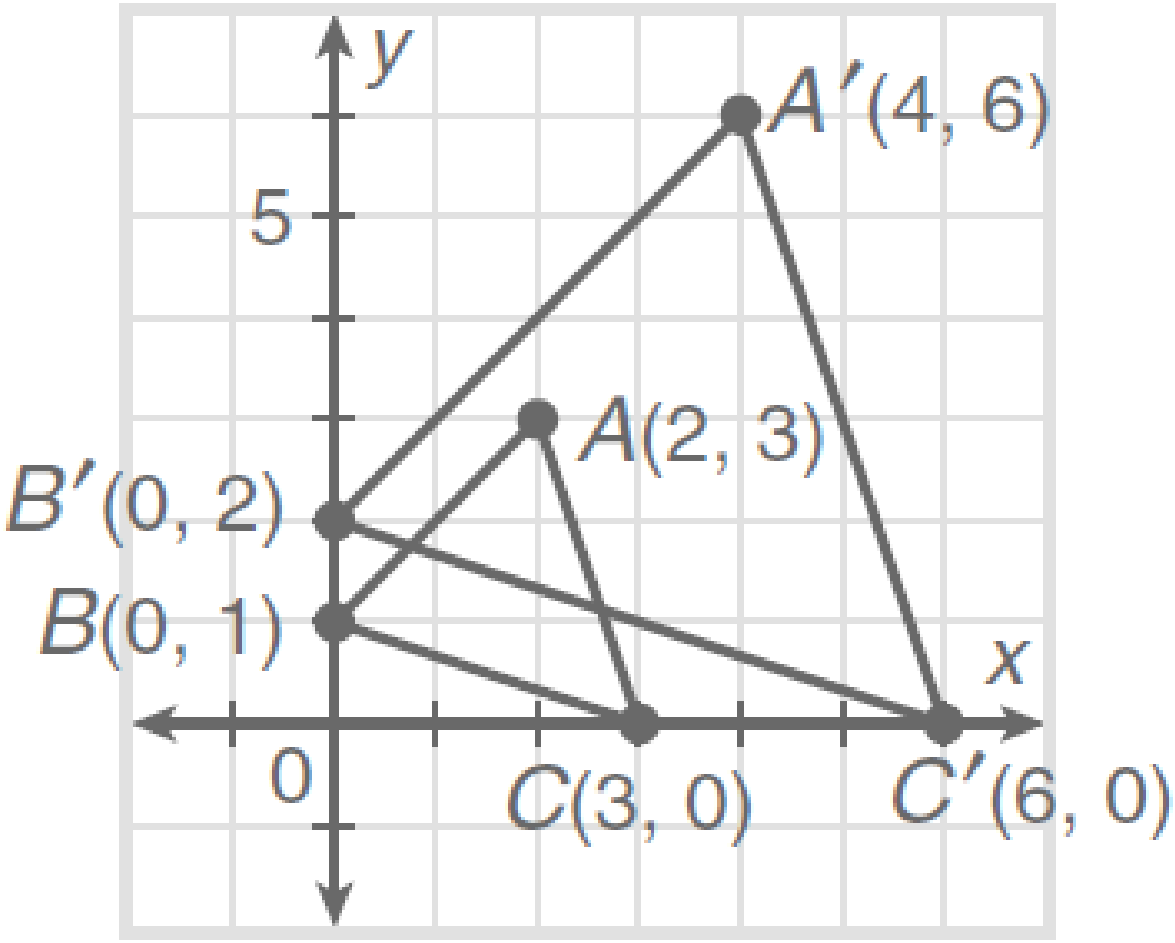


regular polygon

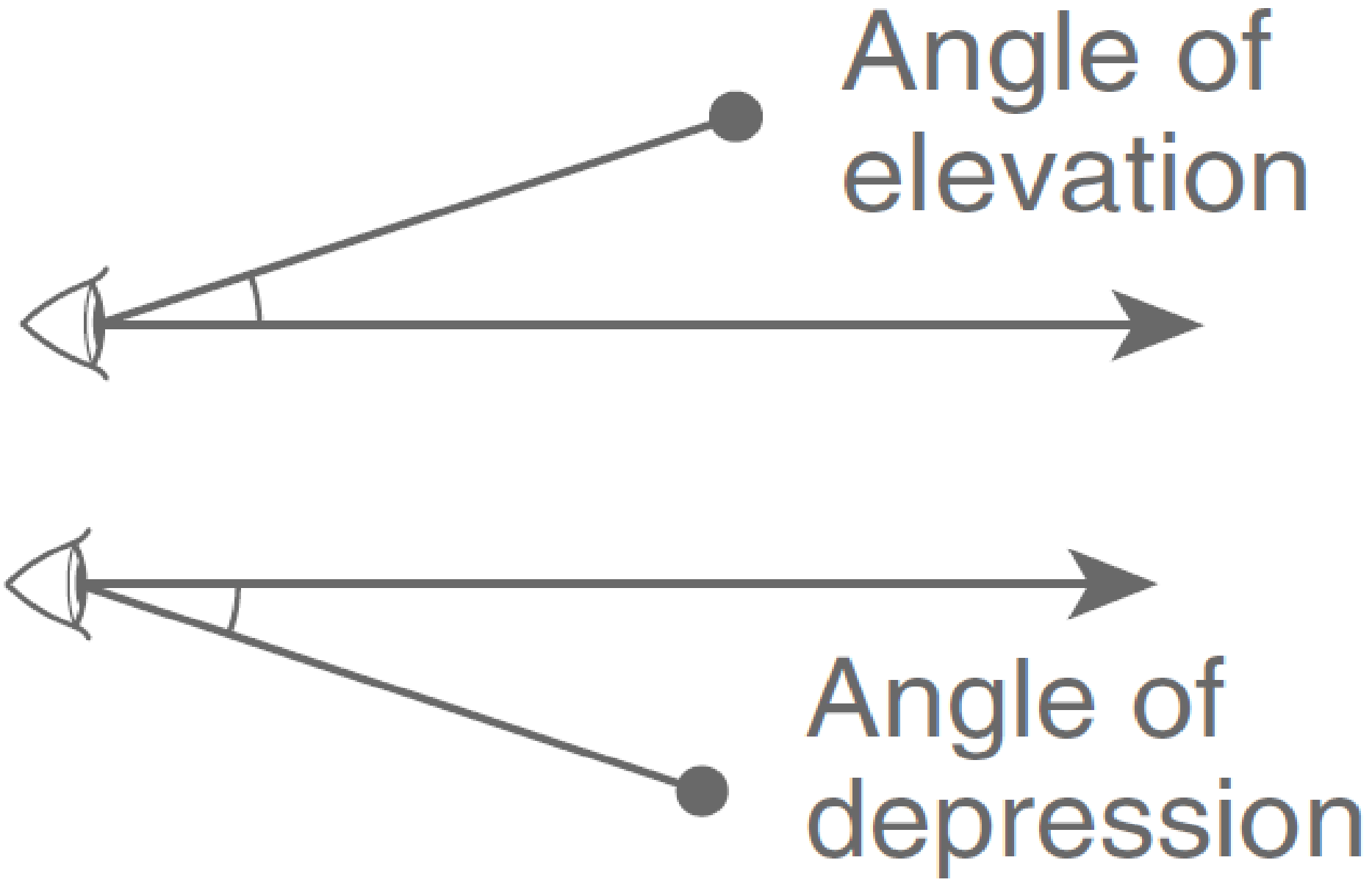


dilation

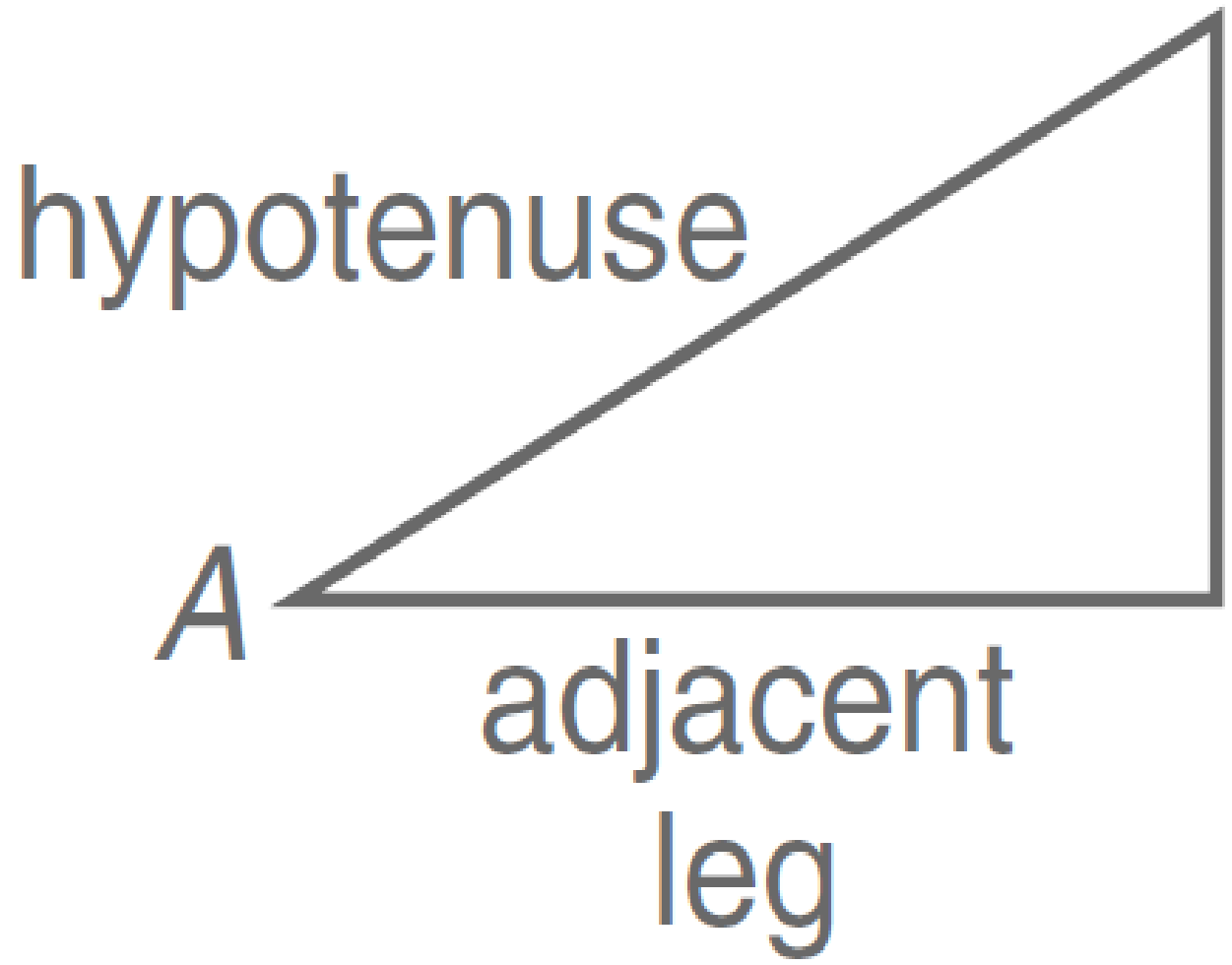




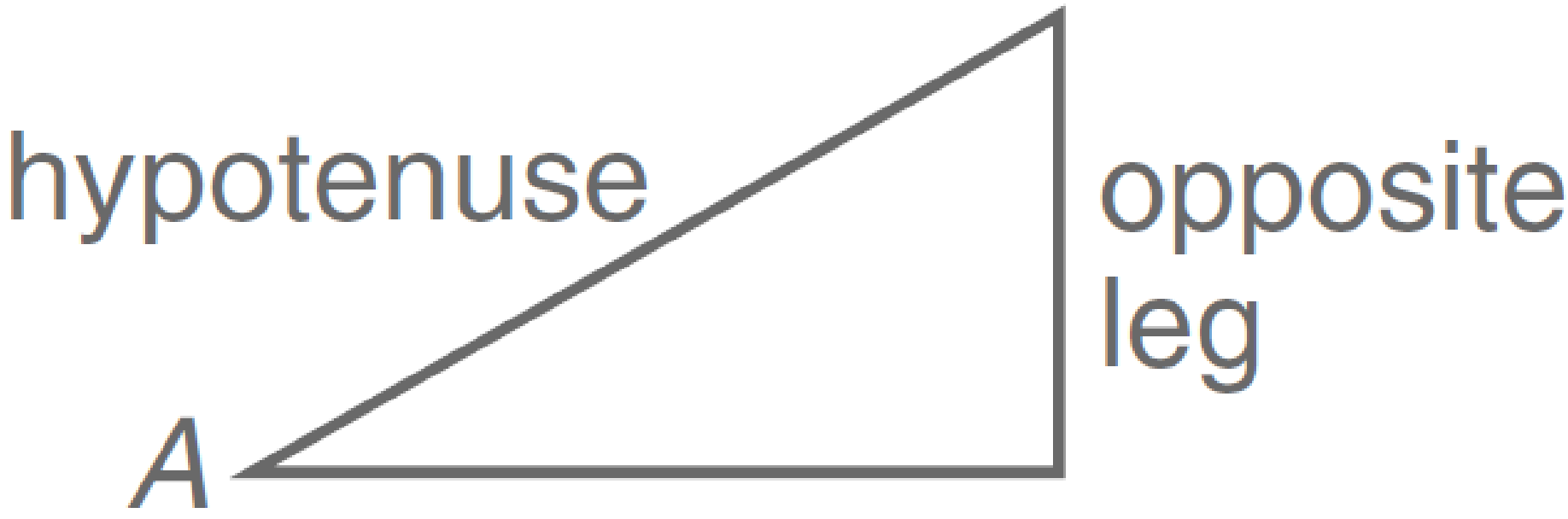
Scale factor: $\frac{\sqrt{40}}{\sqrt{10}} = 2$


Angle of elevation
Angle of depression

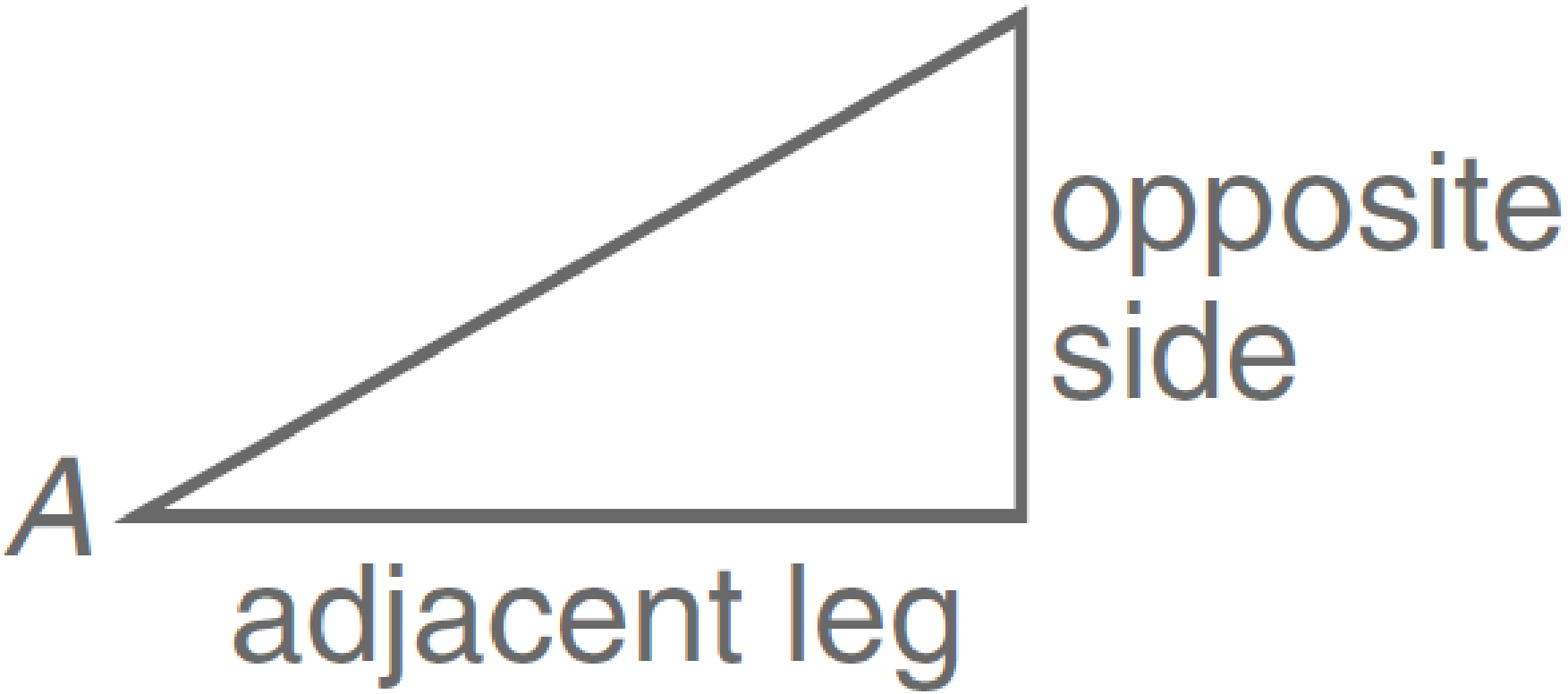
cosine



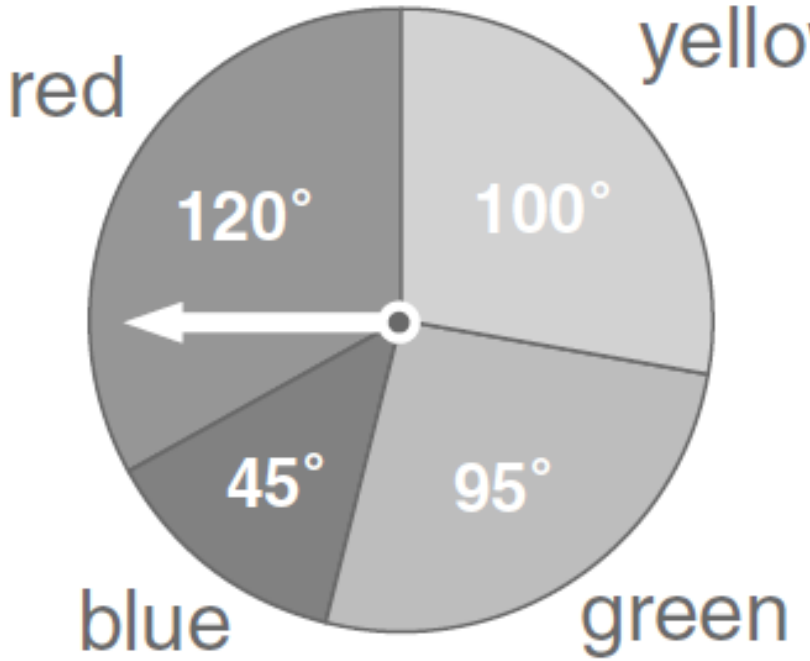
sine



tangent of an angle

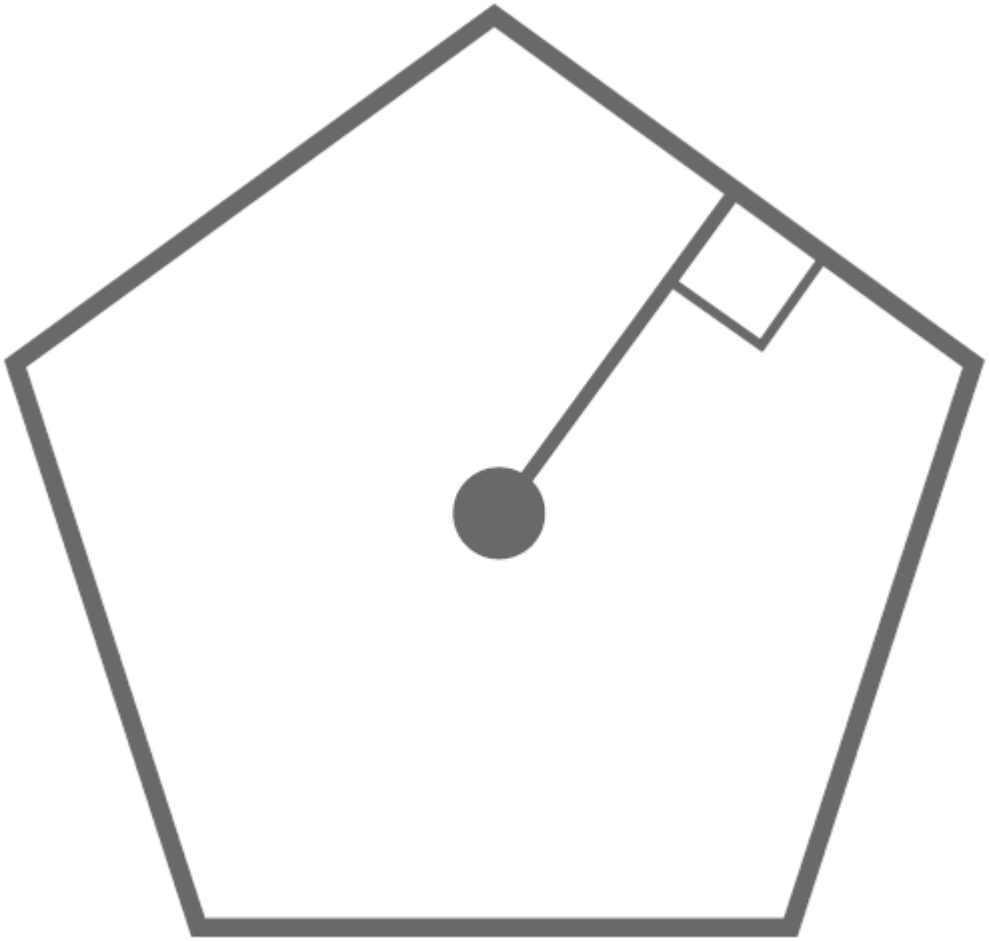


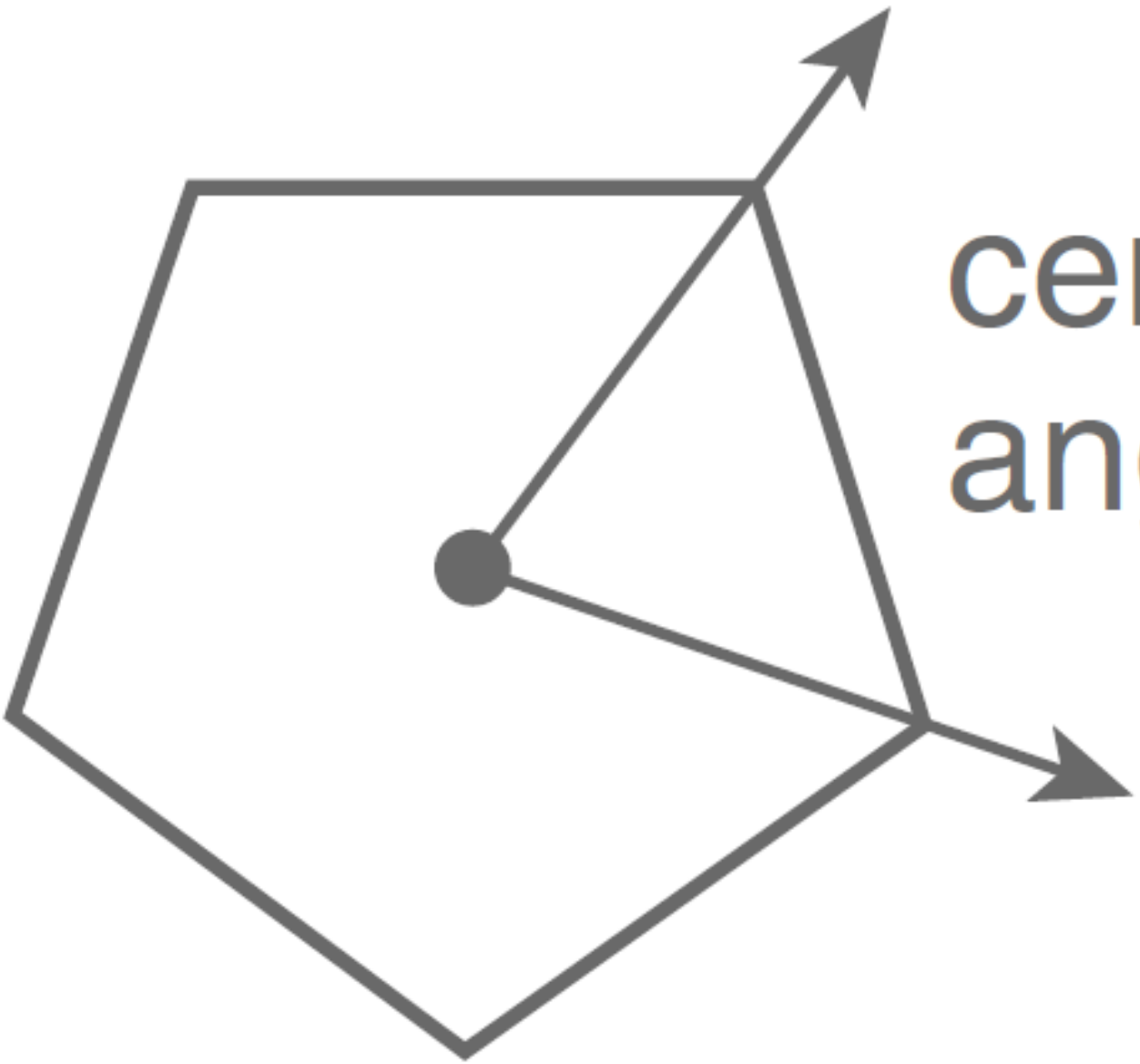
geometric probability



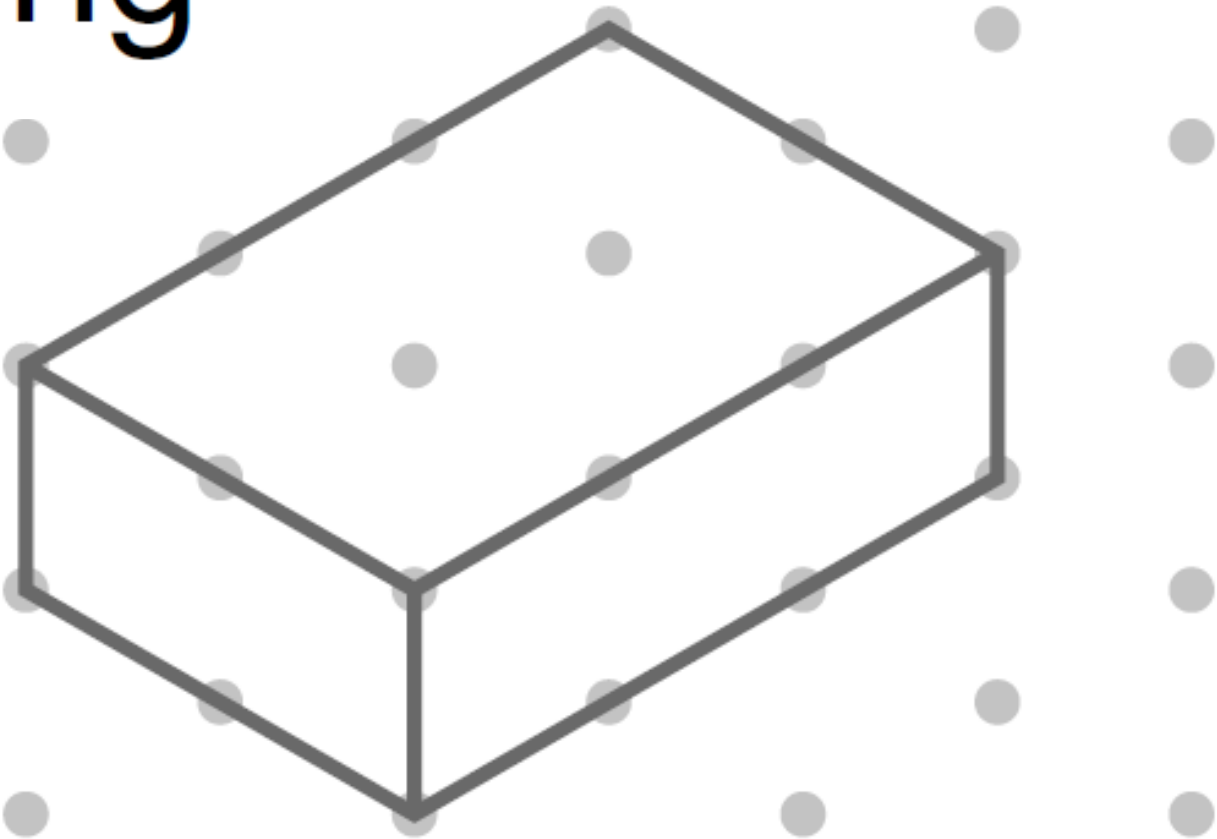
The probability of the pointer landing on red is $\frac{1}{3}$.

apothem

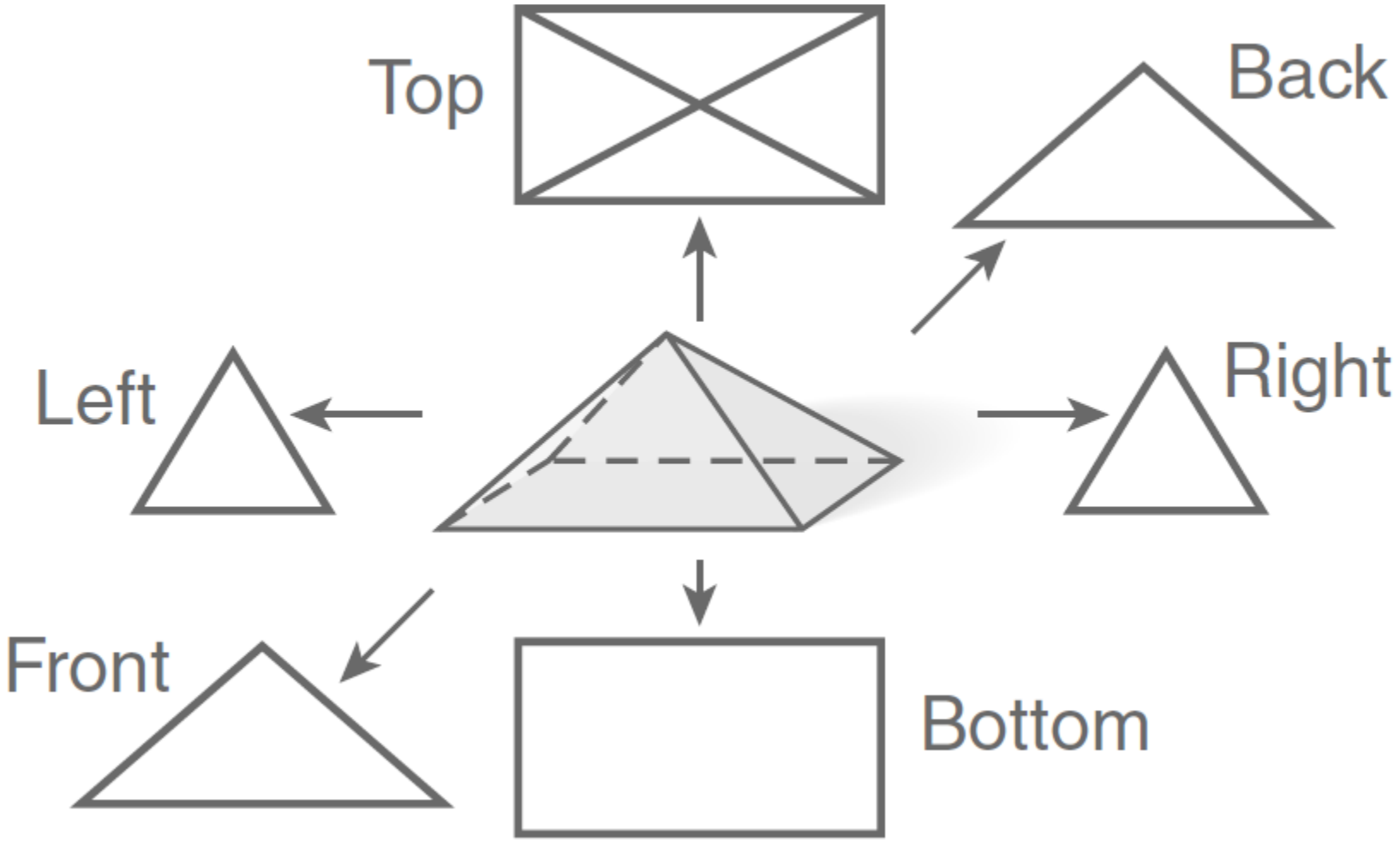


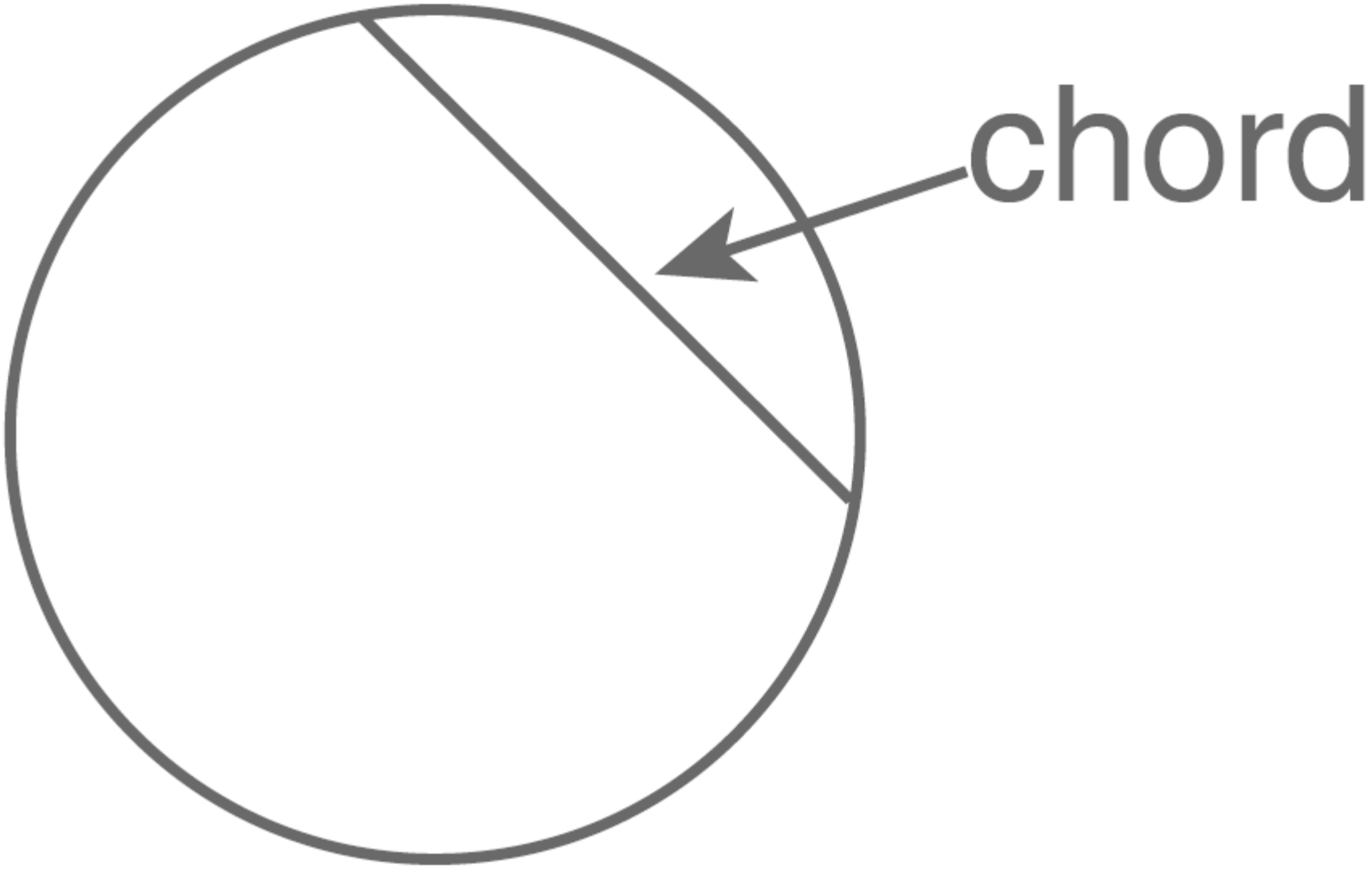

central
angle

isometric drawing

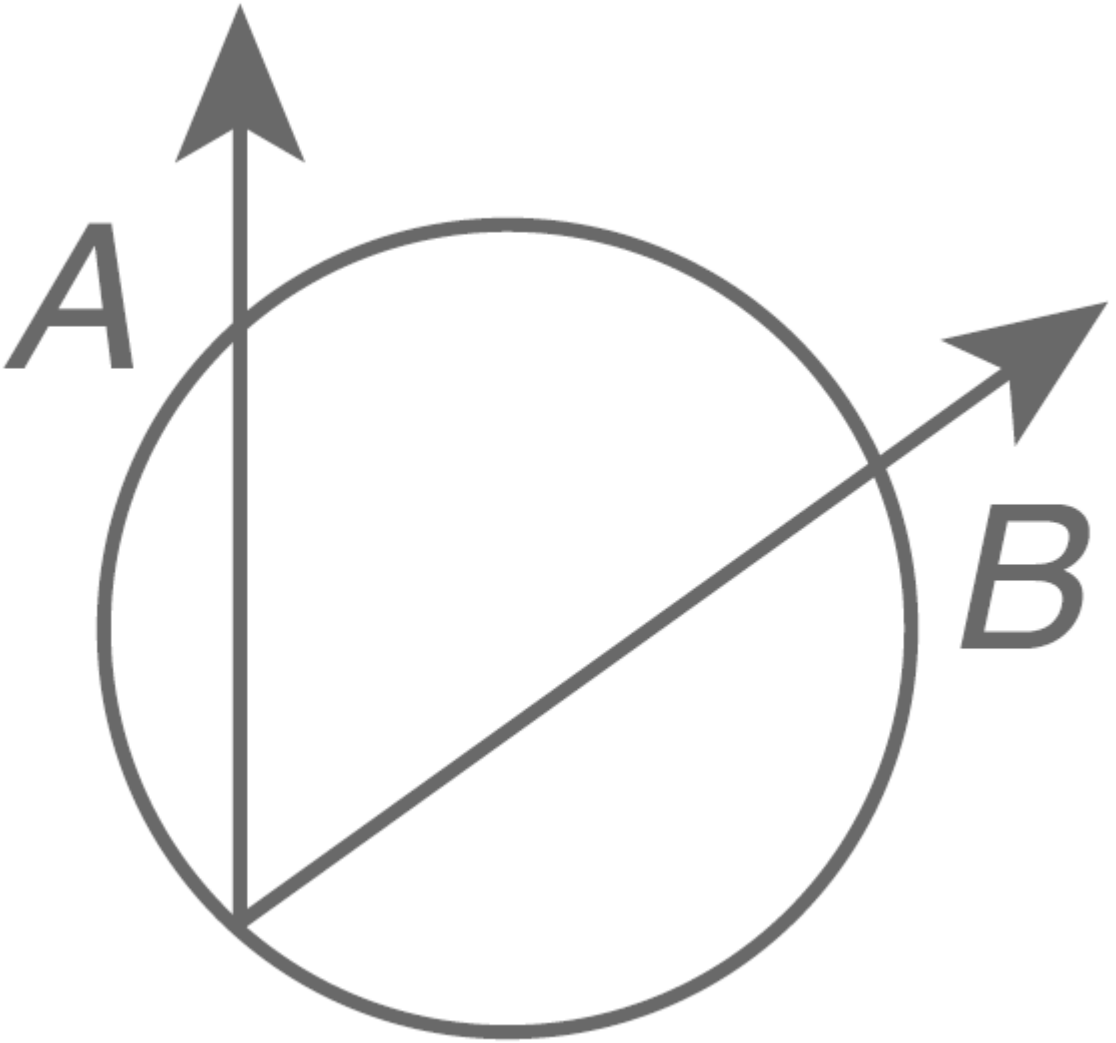


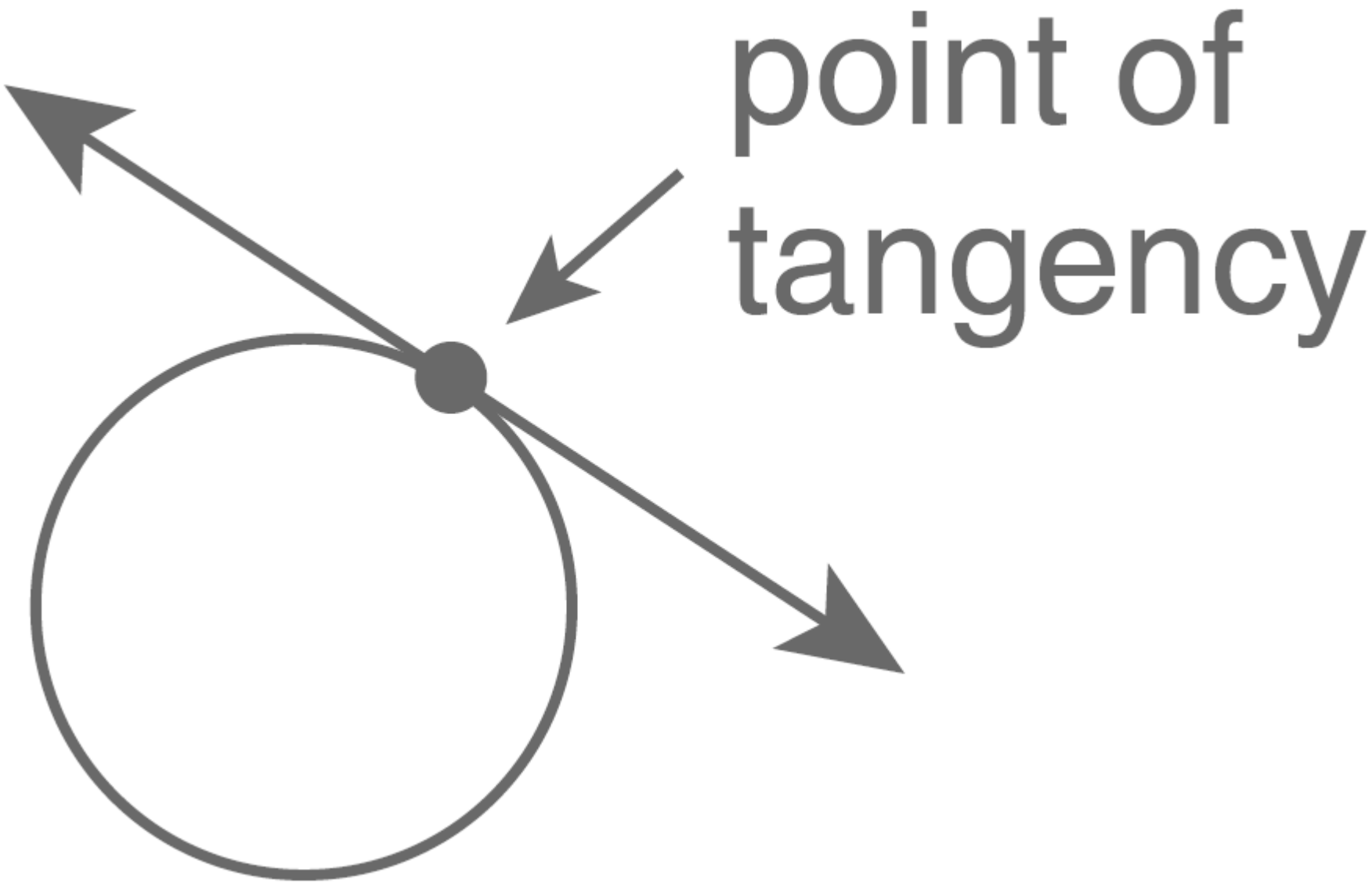
orthographic drawing



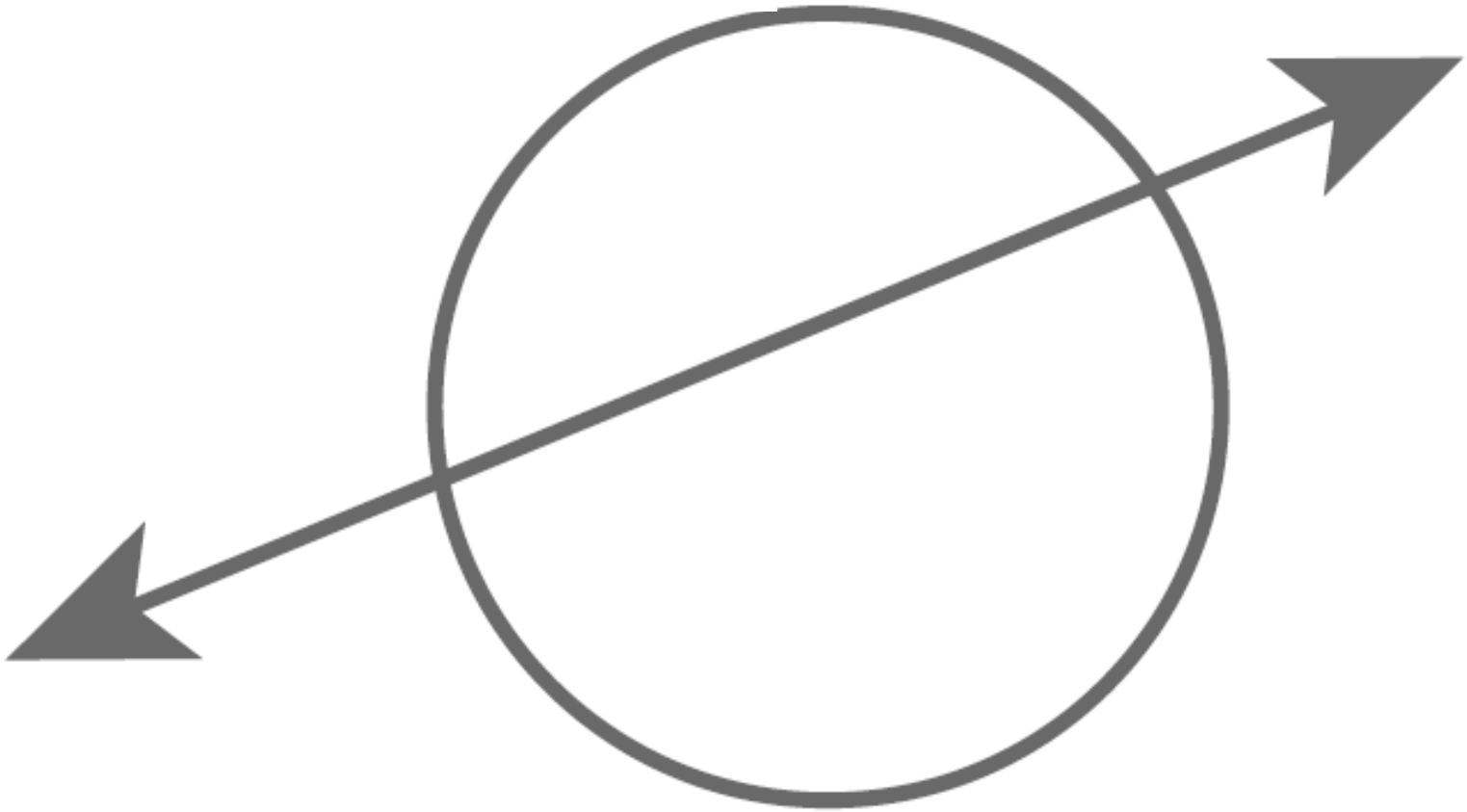

chord

intercepted
arc

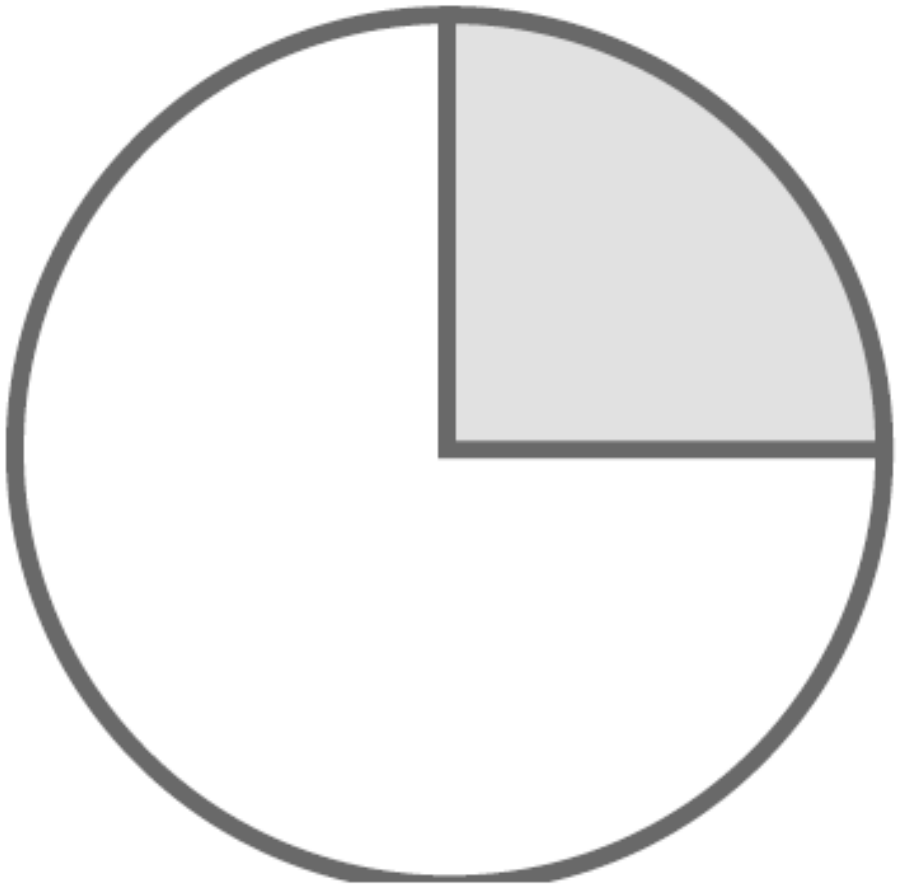



point of
tangency

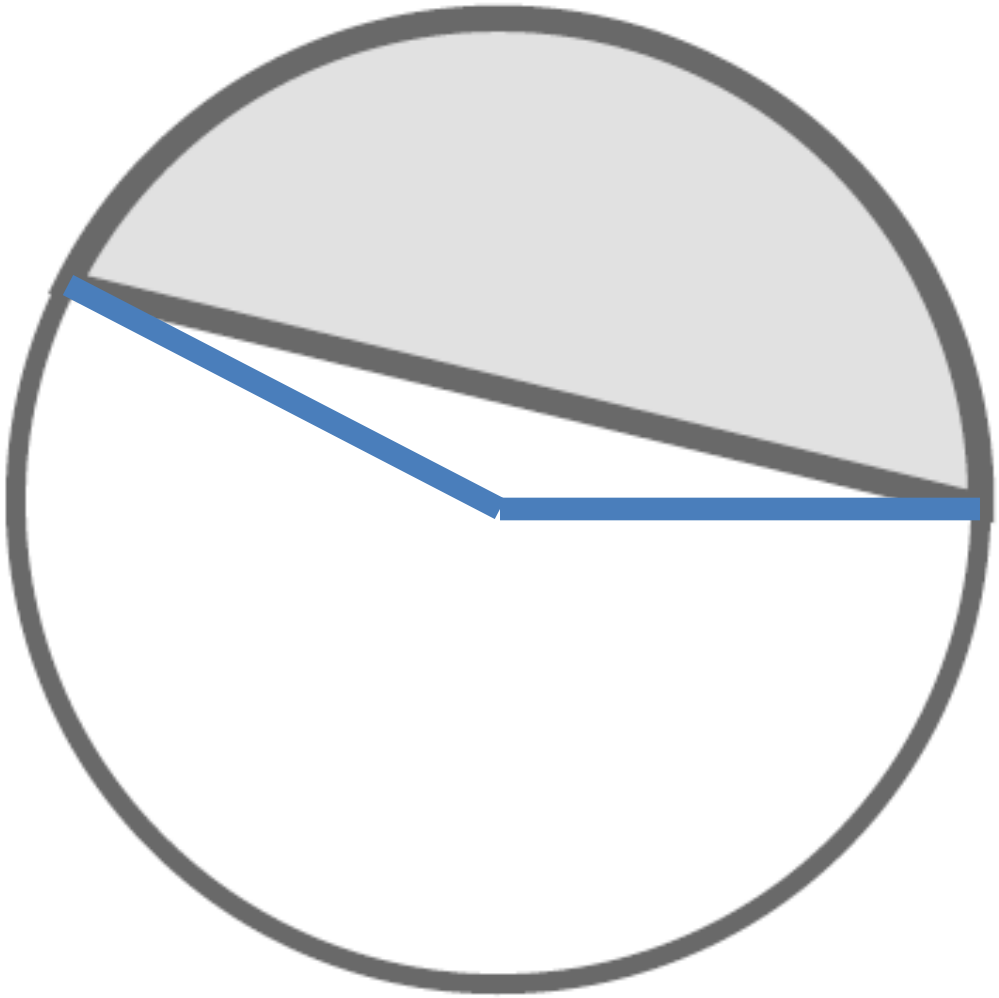
secant of a circle



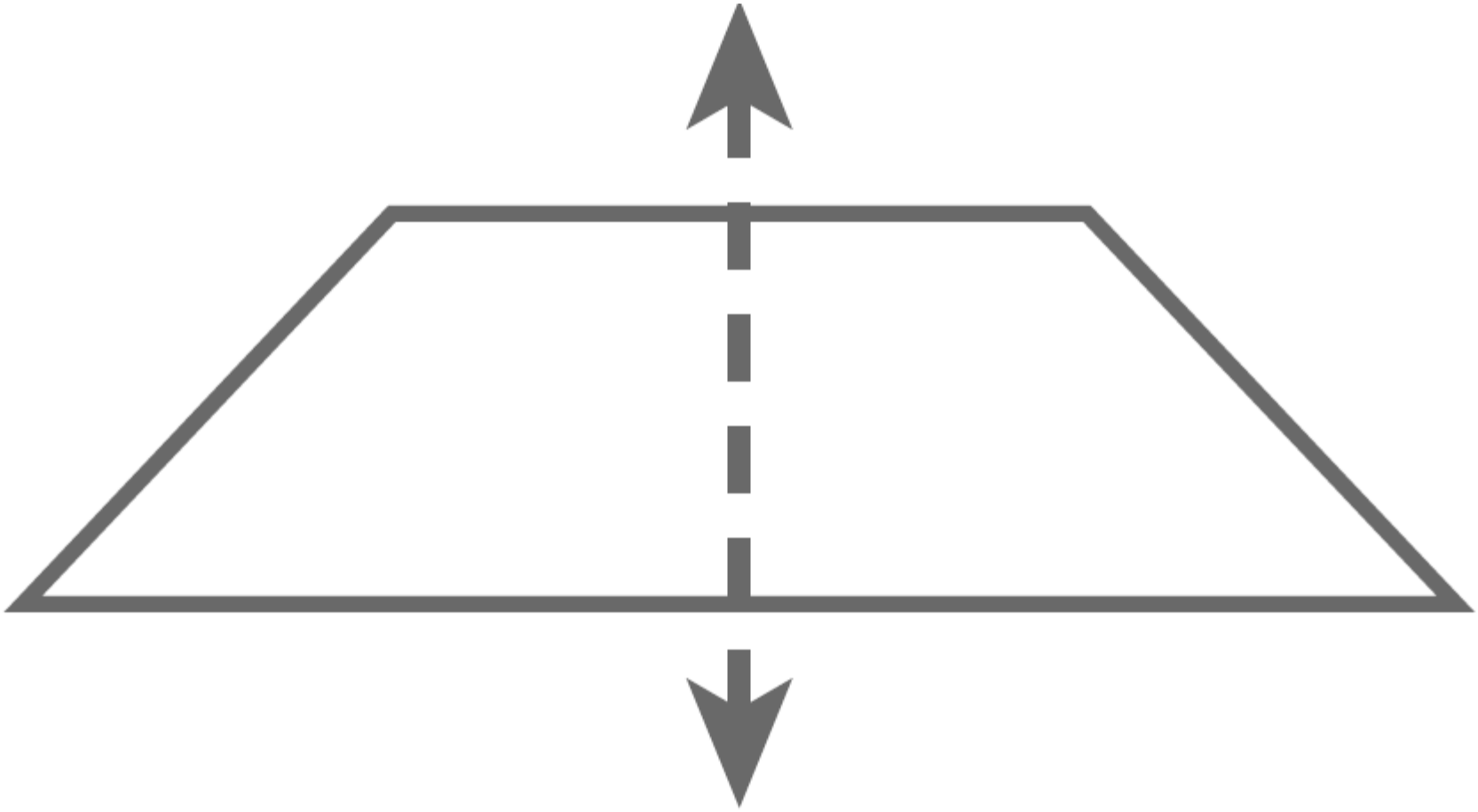
sector of a circle



segment of a circle

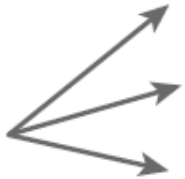


line symmetry



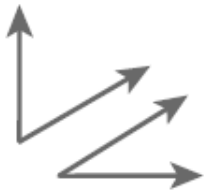
Pairs of Angles

Adjacent angles



two angles in the same plane with a common vertex and a common side, but no common interior points.

Complementary angles

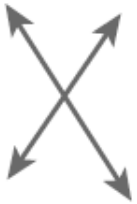


two angles whose measures have a sum of 90°.

Linear pair

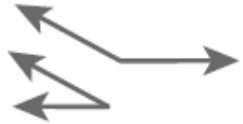
a pair of adjacent angles whose noncommon sides are opposite rays.

Vertical angles



2 nonadjacent angles formed by 2 intersecting lines.

Supplementary angles

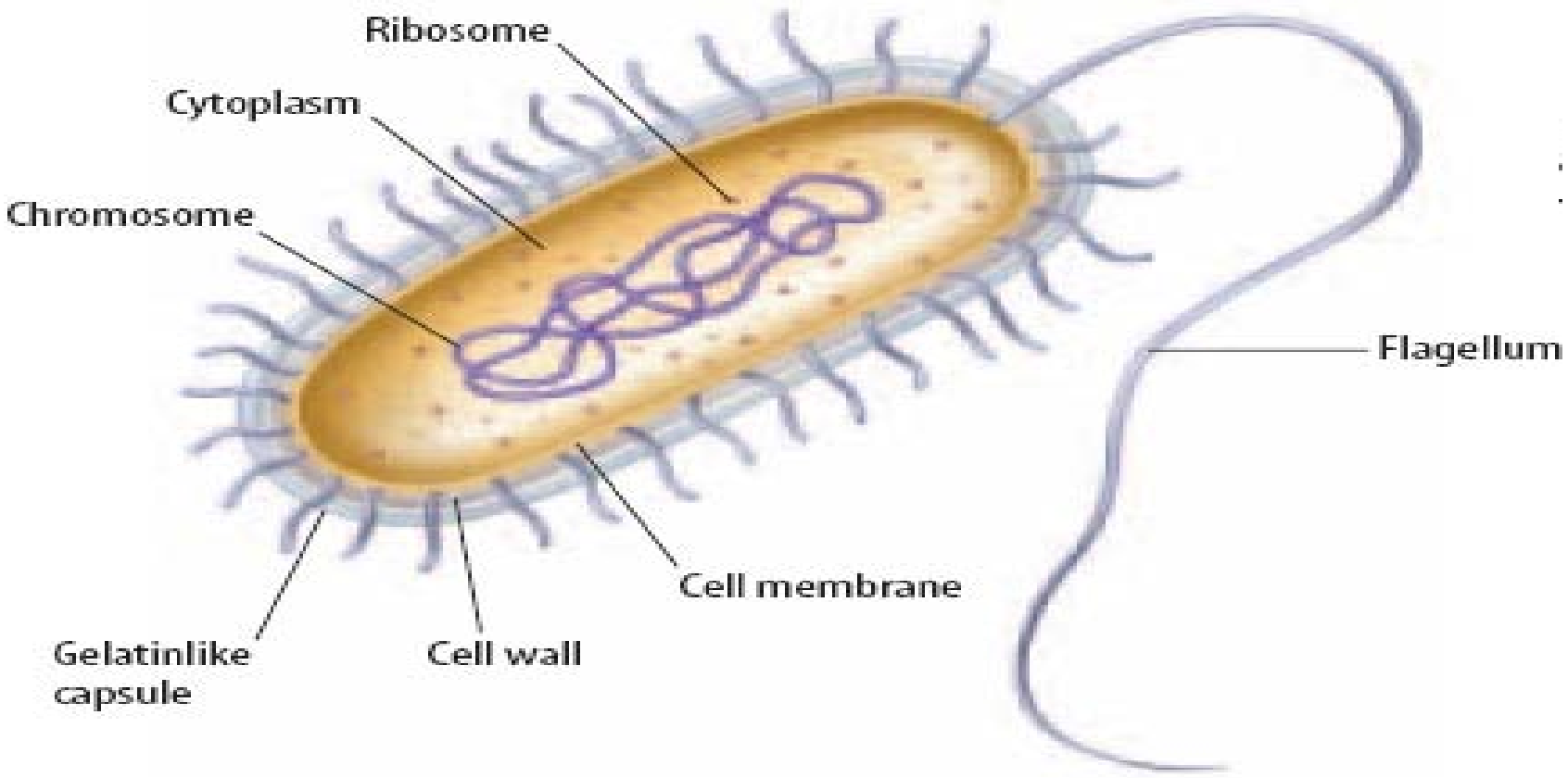


two angles whose measures have a sum of 180°.

BIOLOGY VOCABULARY

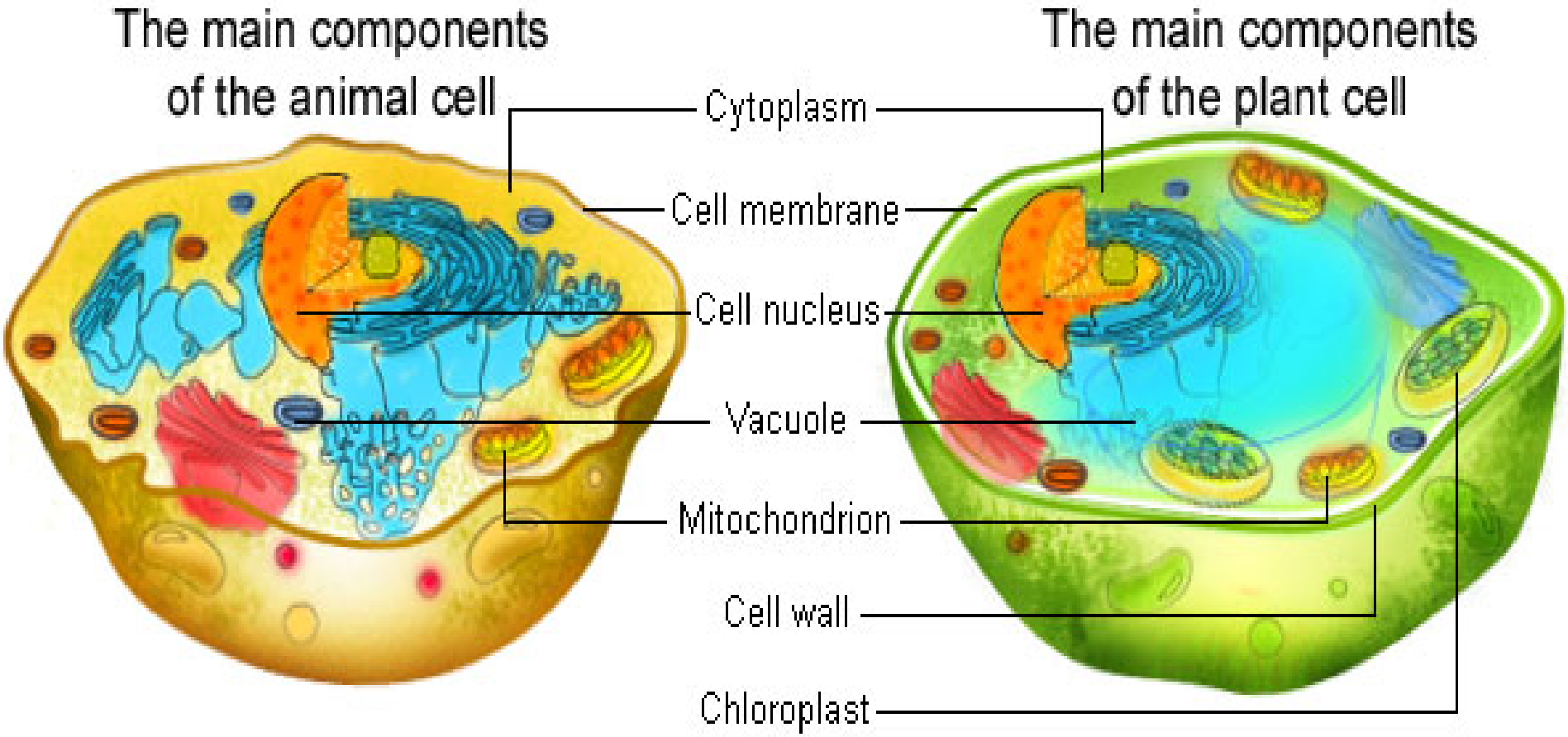
Prokaryote

- Have DNA and ribosomes, but they have no internal membranes! (They don't have a nucleus)

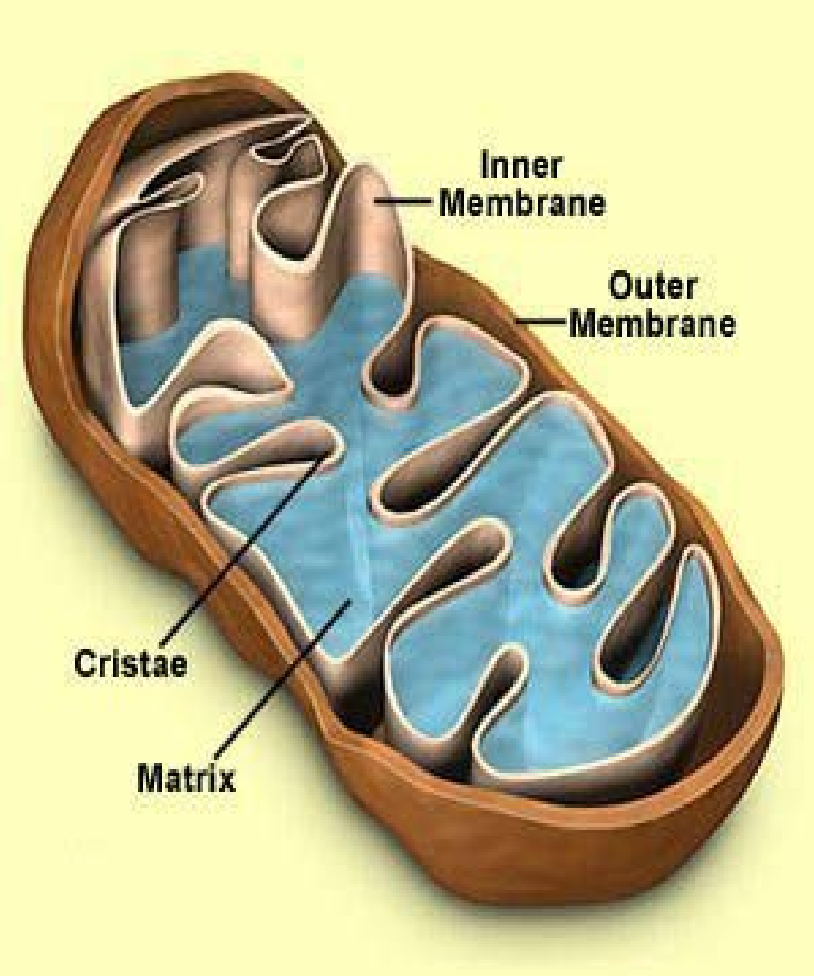


Eukaryotic

Have their DNA surrounded by a membrane. (They have a nucleus).



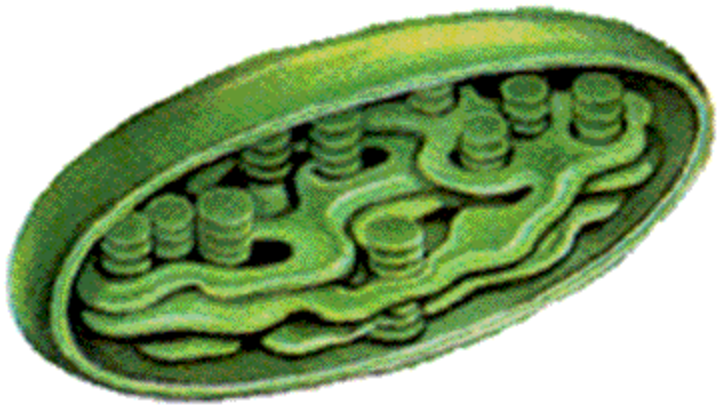
Mitochondria



- **“Powerhouse” of the cell**
- **Produces energy in the form of ATP**
- **Site of Aerobic respiration**

Chloroplast

- Site of photosynthesis
- Plant cells ONLY
- Contains the pigment chlorophyll



CELL TRANSPORT

Diffusion

- Movement from high to low concentration
- No energy required

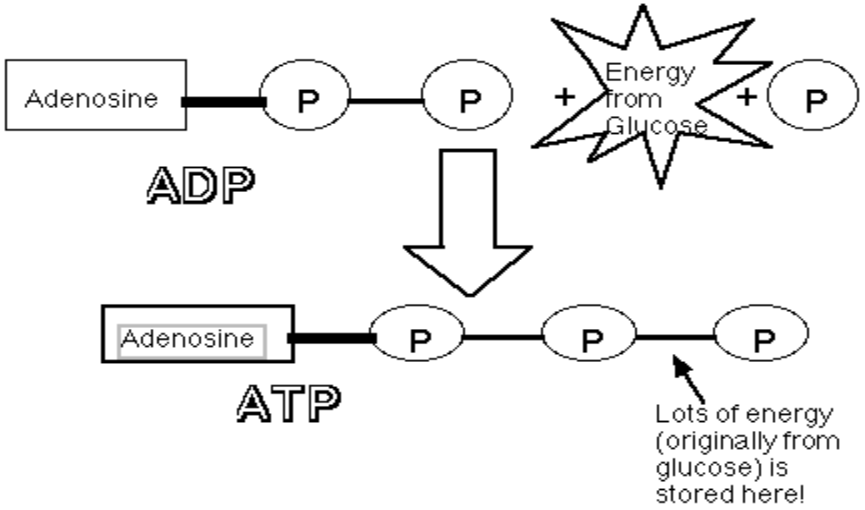
Osmosis

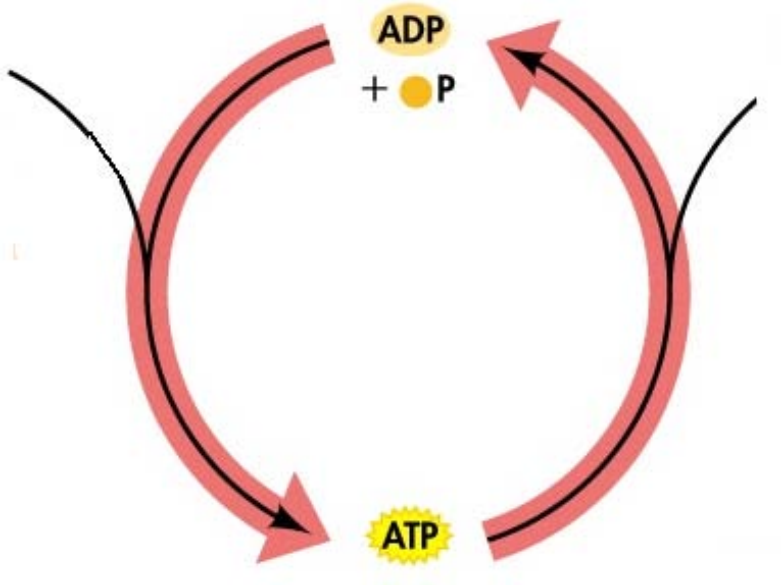
- Movement of water from high to low WATER concentration across a membrane
- No energy required

Active Transport

- Movement from LOW concentration to HIGH concentration
- USES ATP

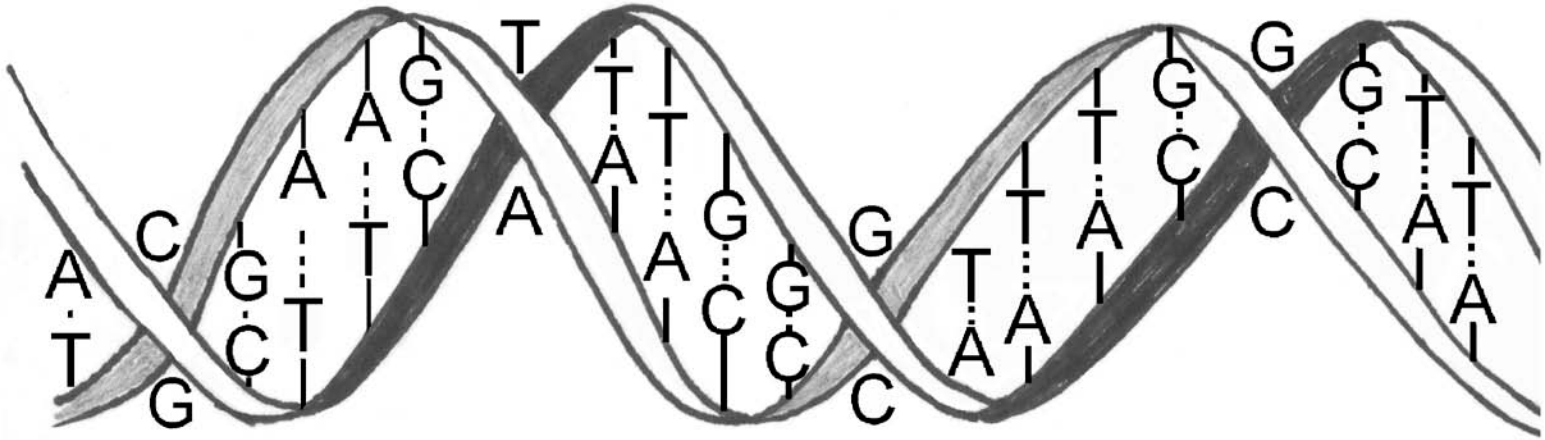
ATP





- Energy storing molecule
- Can be used for quick energy by the cell

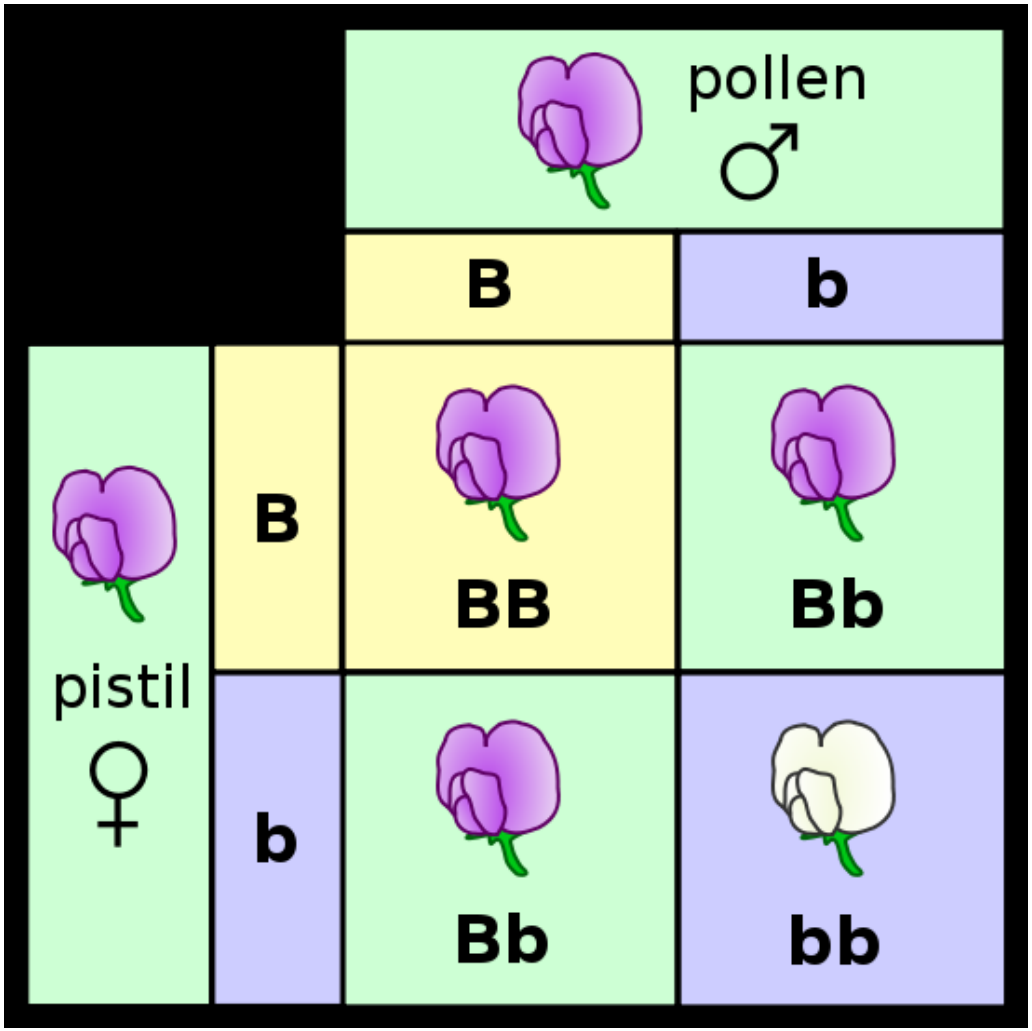
Base Pair Rule



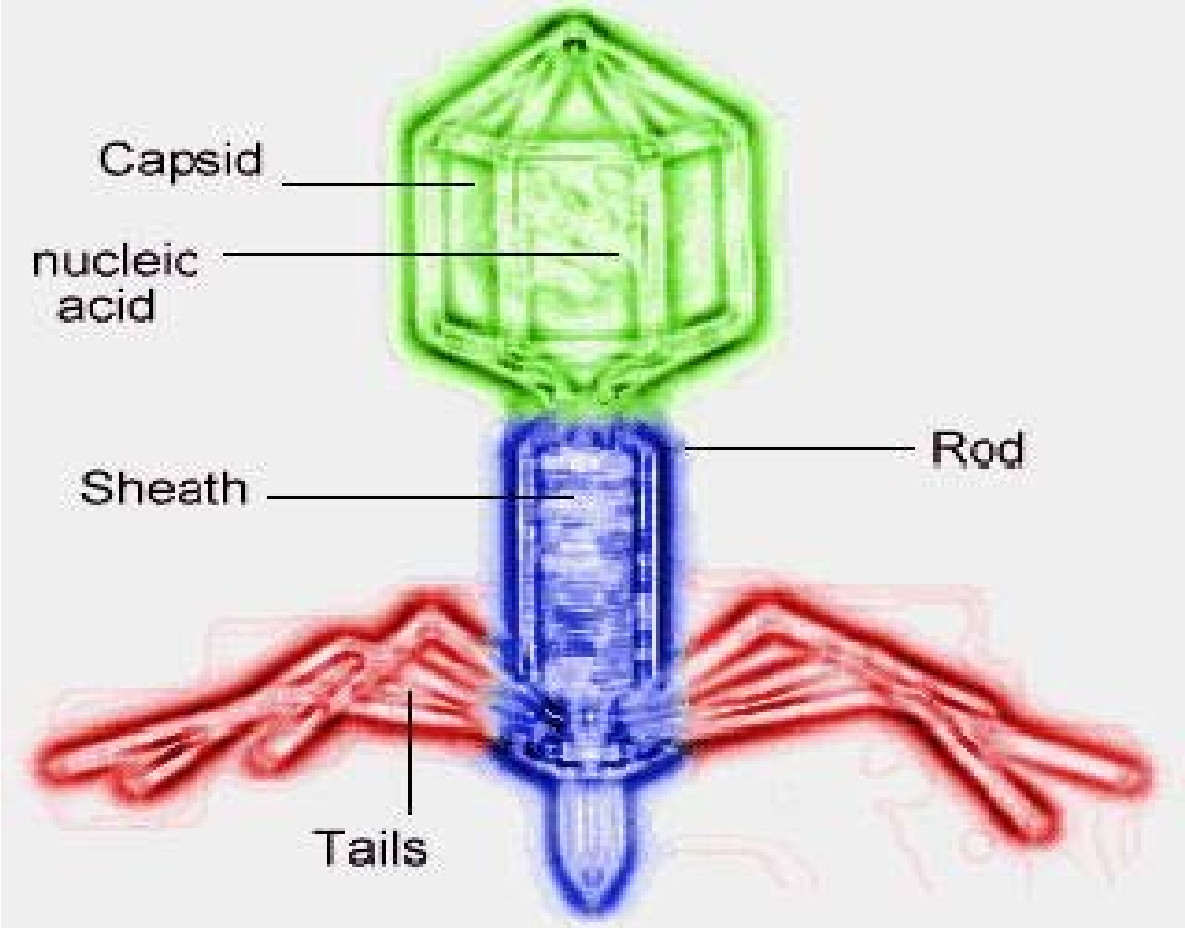
- In DNA,

Adenine always pairs with Thymine
Guanine always pairs with Cytosine

Punnett Square



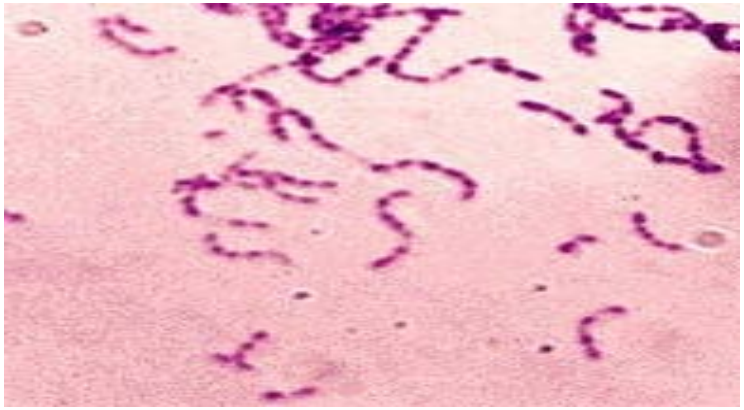
Virus



BACTERIA

- Can be **killed by antibiotics**

- Examples of disease caused by bacteria is strep throat.

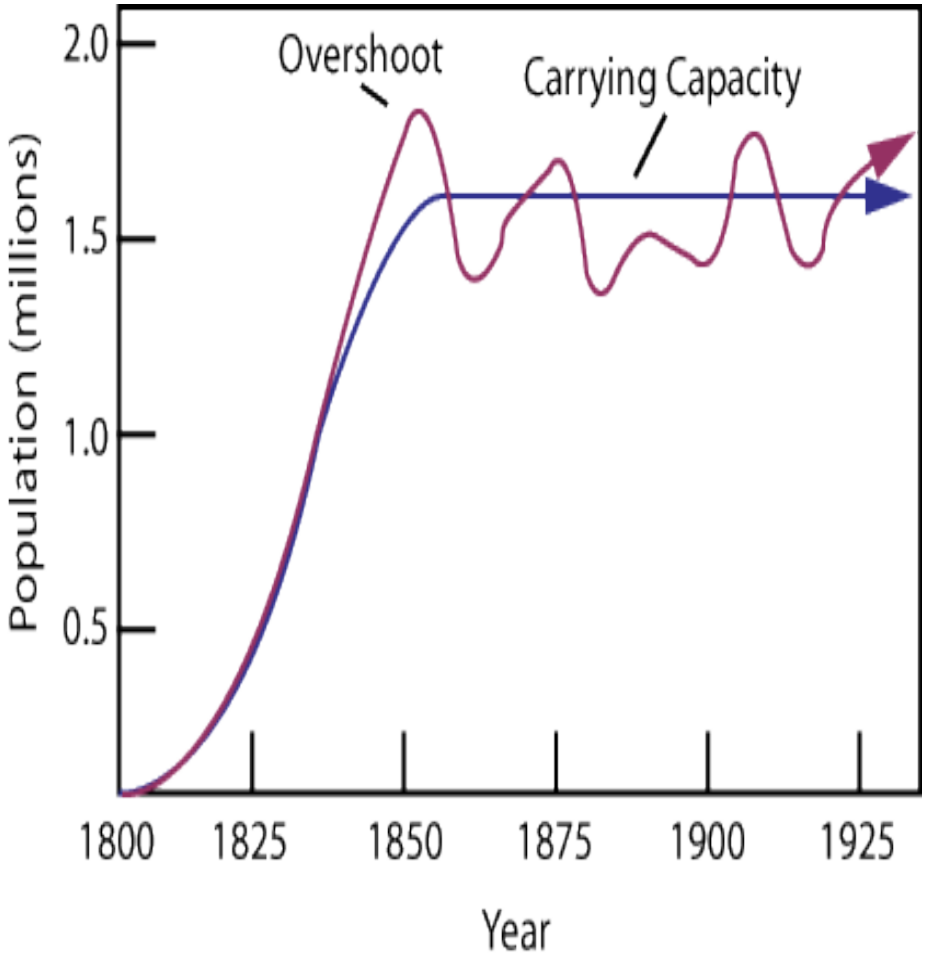


Parasitism

- PARASITE BENEFITS by getting food and shelter from the HOST
- This is good for the tick, but bad for the human.

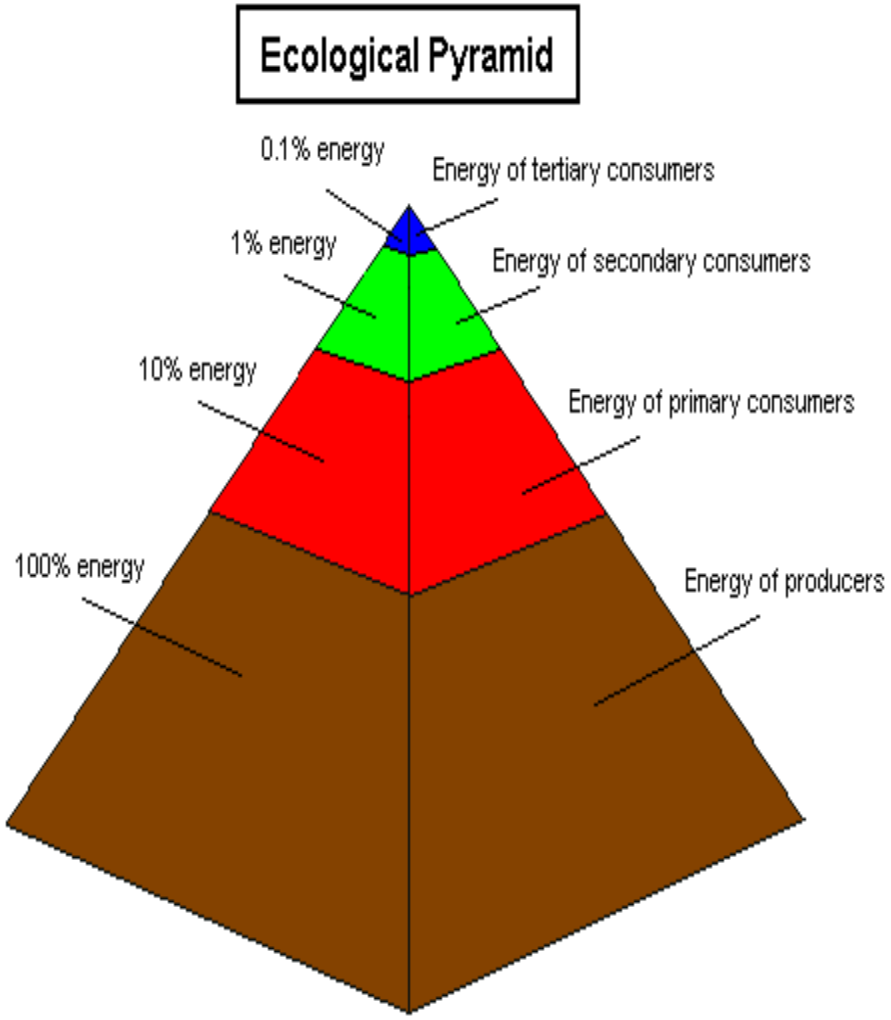
Carrying Capacity

- **Maximum number** of individuals that an ecosystem can support
- Limiting factors:
  - Food availability
  - Competition
  - Disease
  - Predation
  - Natural Disasters

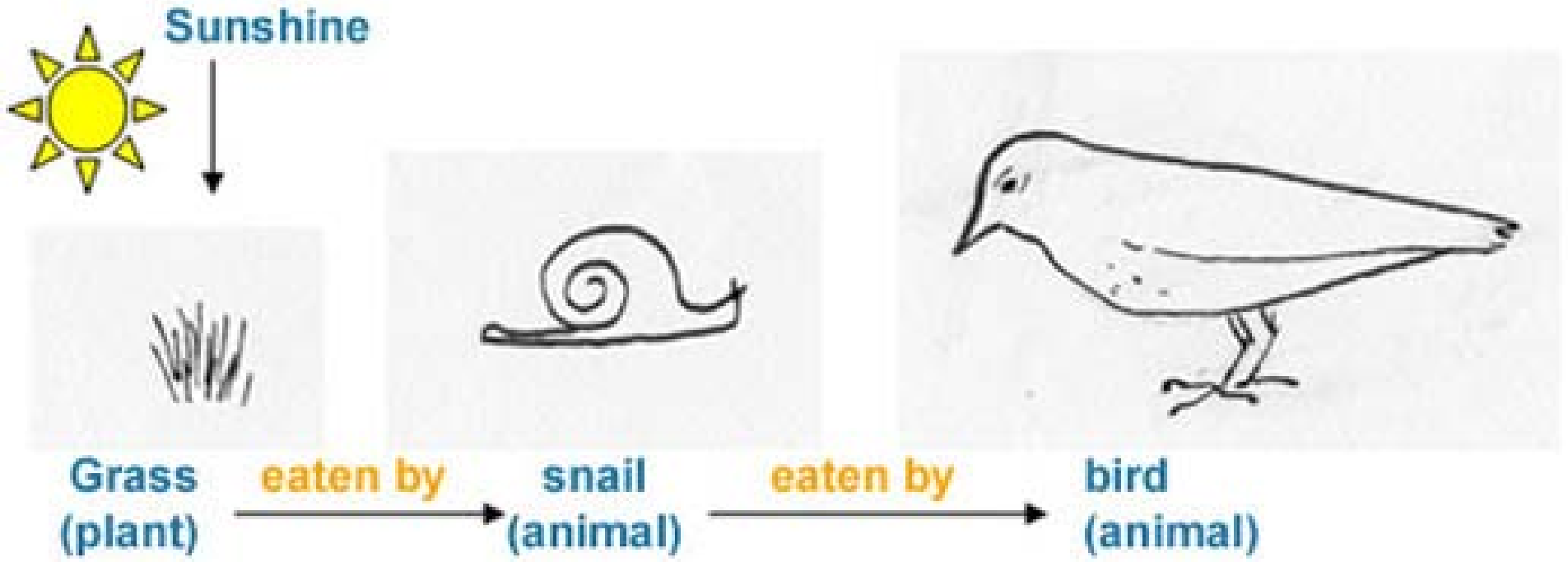


Trophic Levels

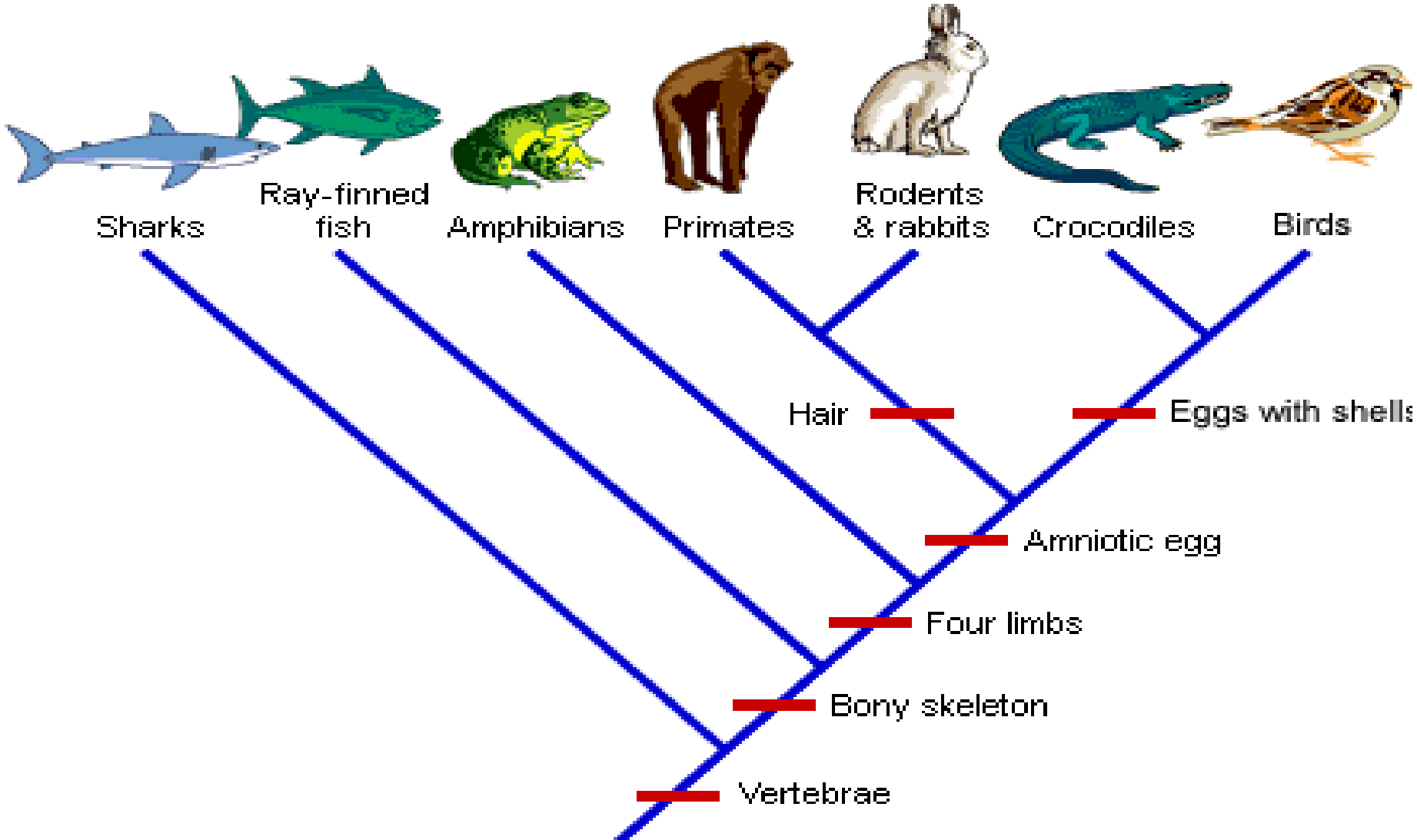
- Steps in a food chain/web
- Energy passes from one organism to another
- **About 10%** of the energy at one level passes to the next



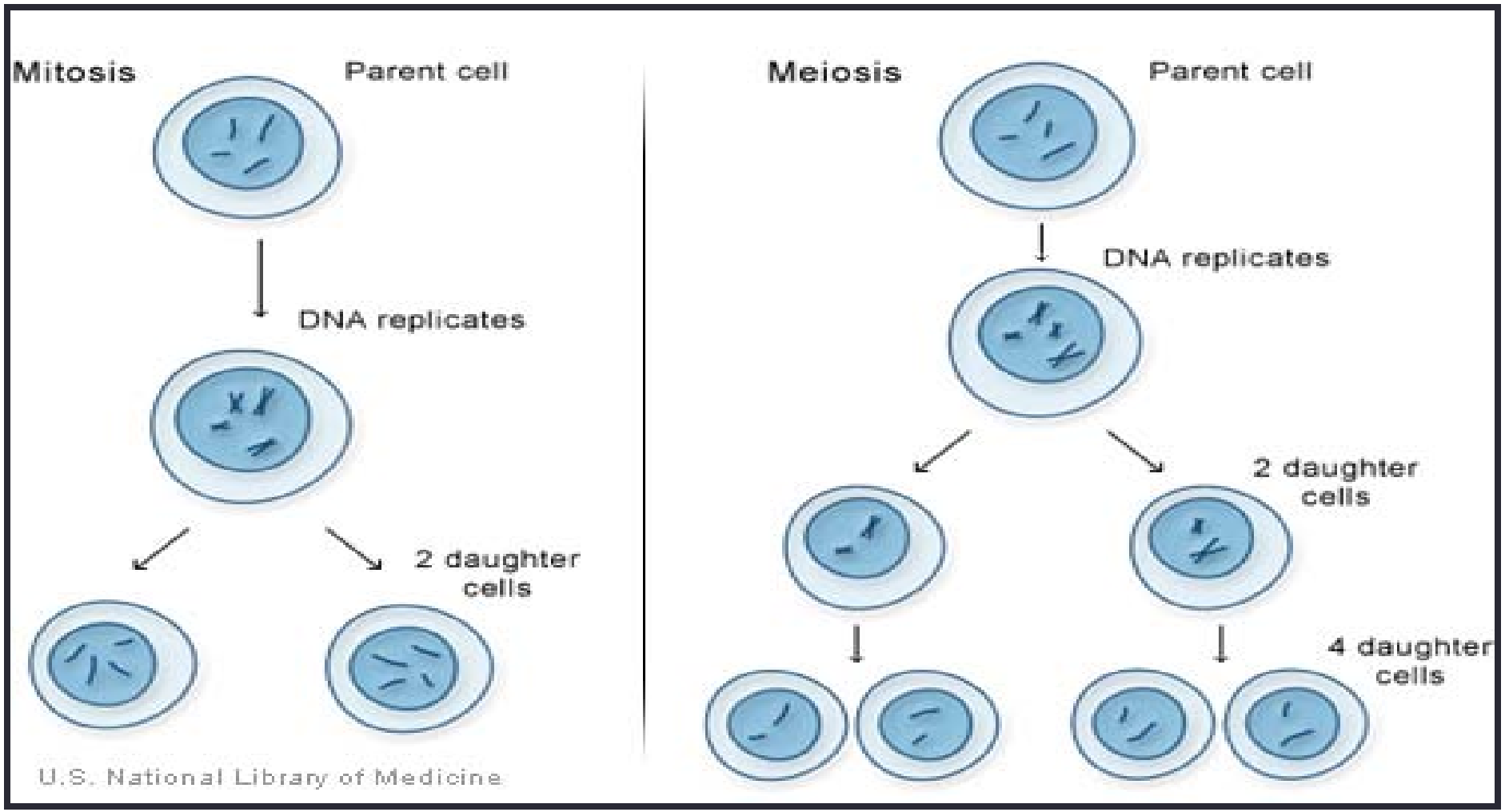
Food Chain


Sunshine
Grass
(plant)
eaten by
snail
(animal)
eaten by
bird
(animal)

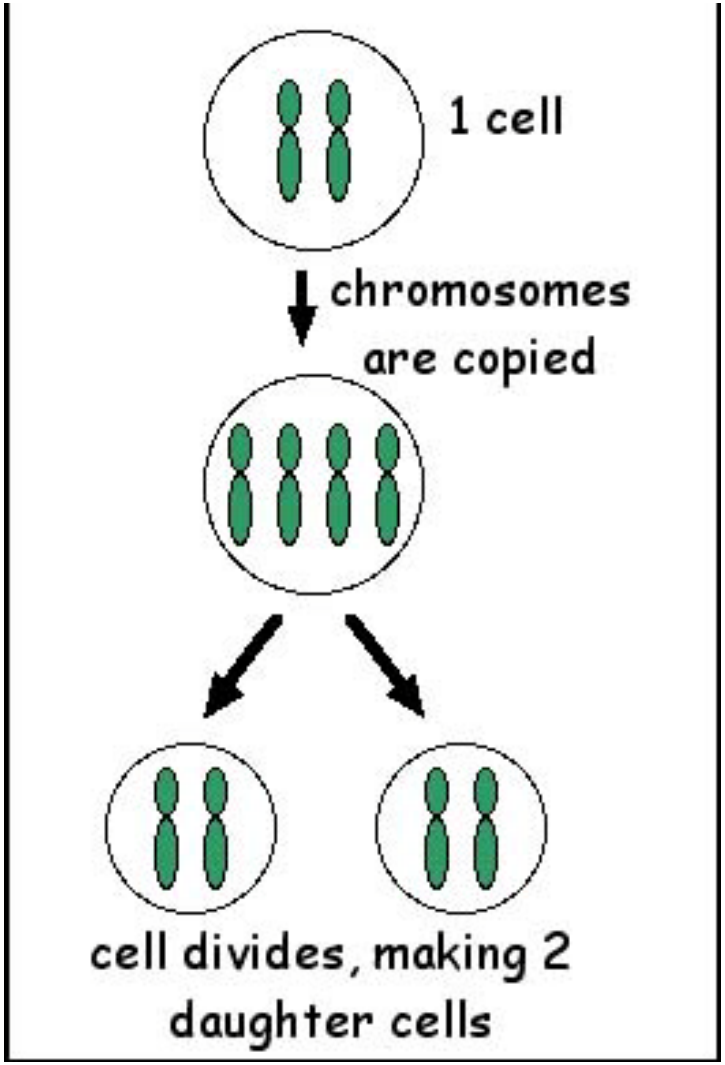
Cladogram


Sharks
Ray-finned fish
Amphibians
Primates
Rodents & rabbits
Crocodiles
Birds
Hair
Eggs with shells
Amniotic egg
Four limbs
Bony skeleton
Vertebrae

Mitosis vs Meiosis



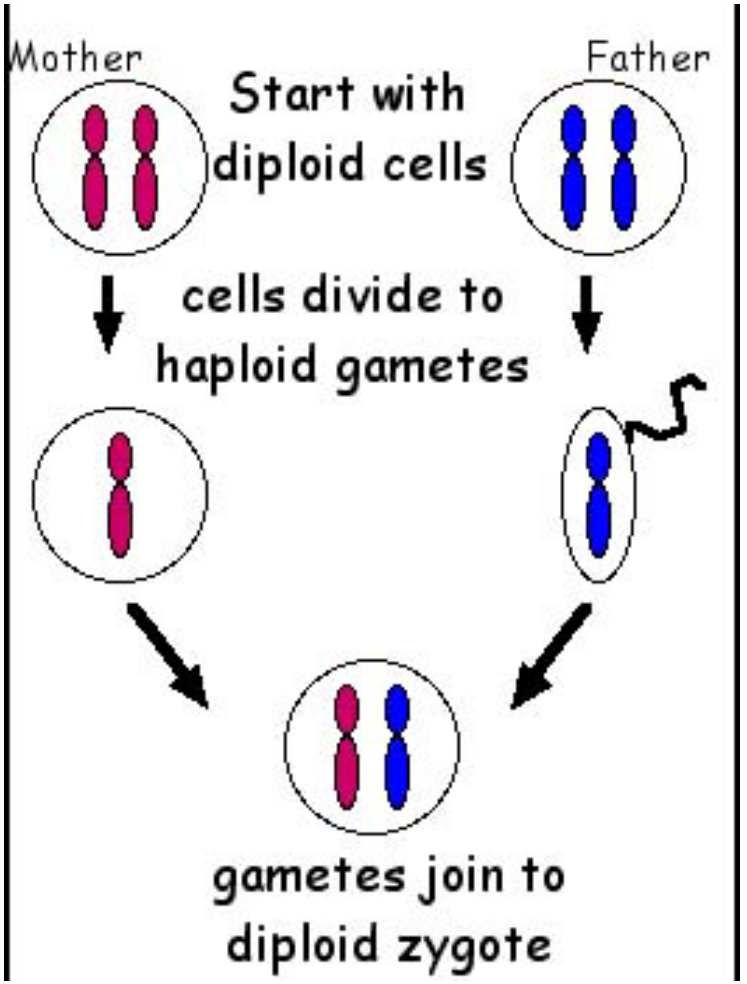
Mitosis



- Cell division
- Produces two identical diploid daughter cells

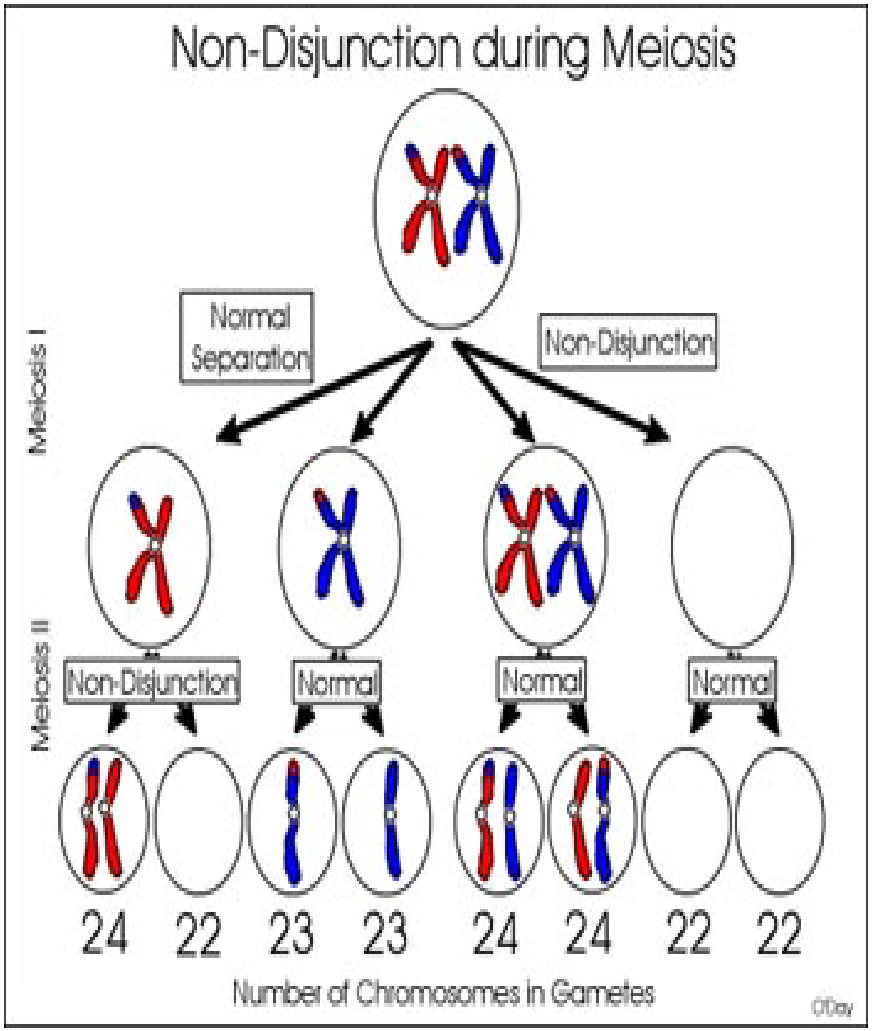
Meiosis

- Produces **four different** haploid daughter cells (gametes)
- Occurs in sex cells to form gametes



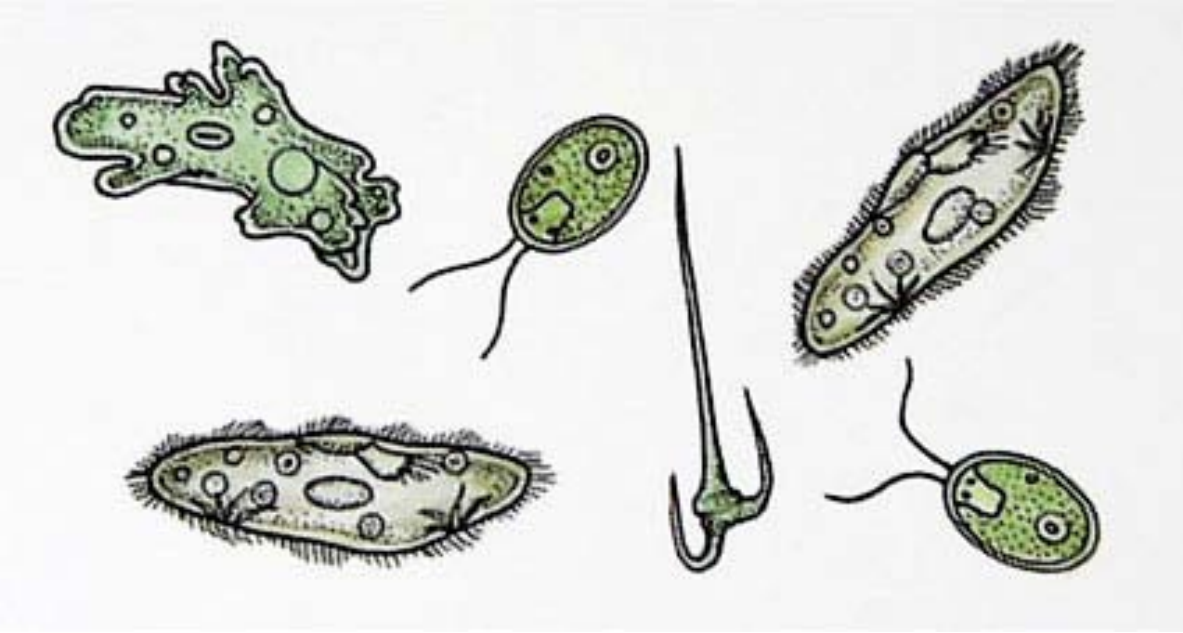
Nondisjunction

- Homologous chromosomes **fail** to separate during meiosis.



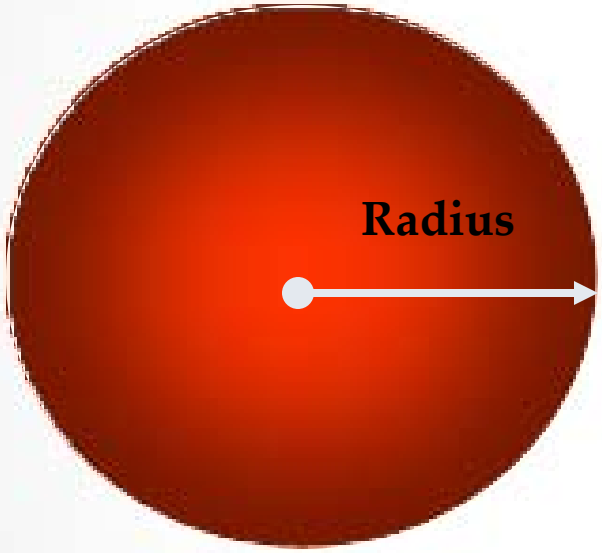
Protists

- Unicellular Eukaryotes
- Can be autotrophic or heterotrophic
- Reproduce mostly asexually



Chemistry Vocabulary

Atomic Radius



Atomic radius is the distance **from the center** of an atom's nucleus to its outermost electron.

Isotopes

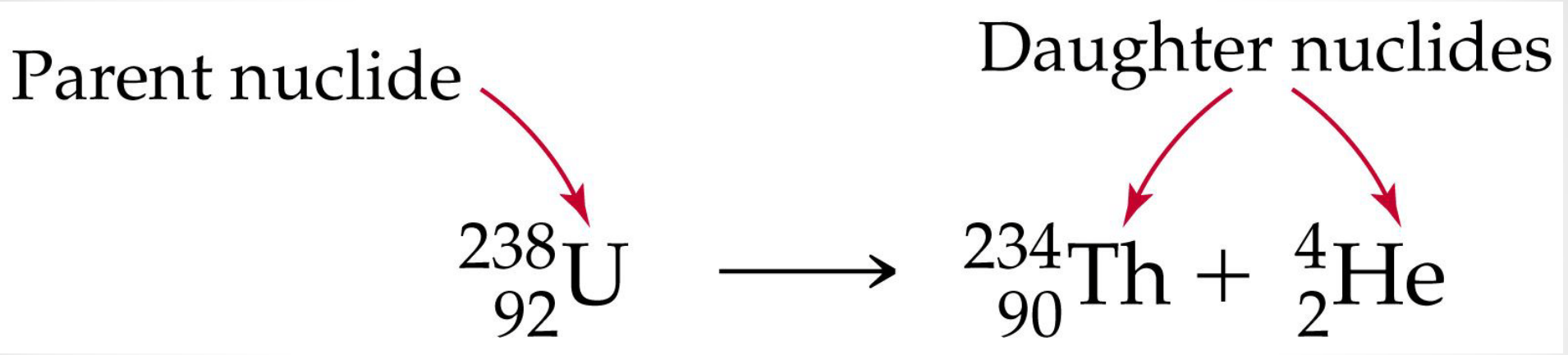
Atoms of the same element (same atomic number) with **different** mass numbers

Isotopes of chlorine

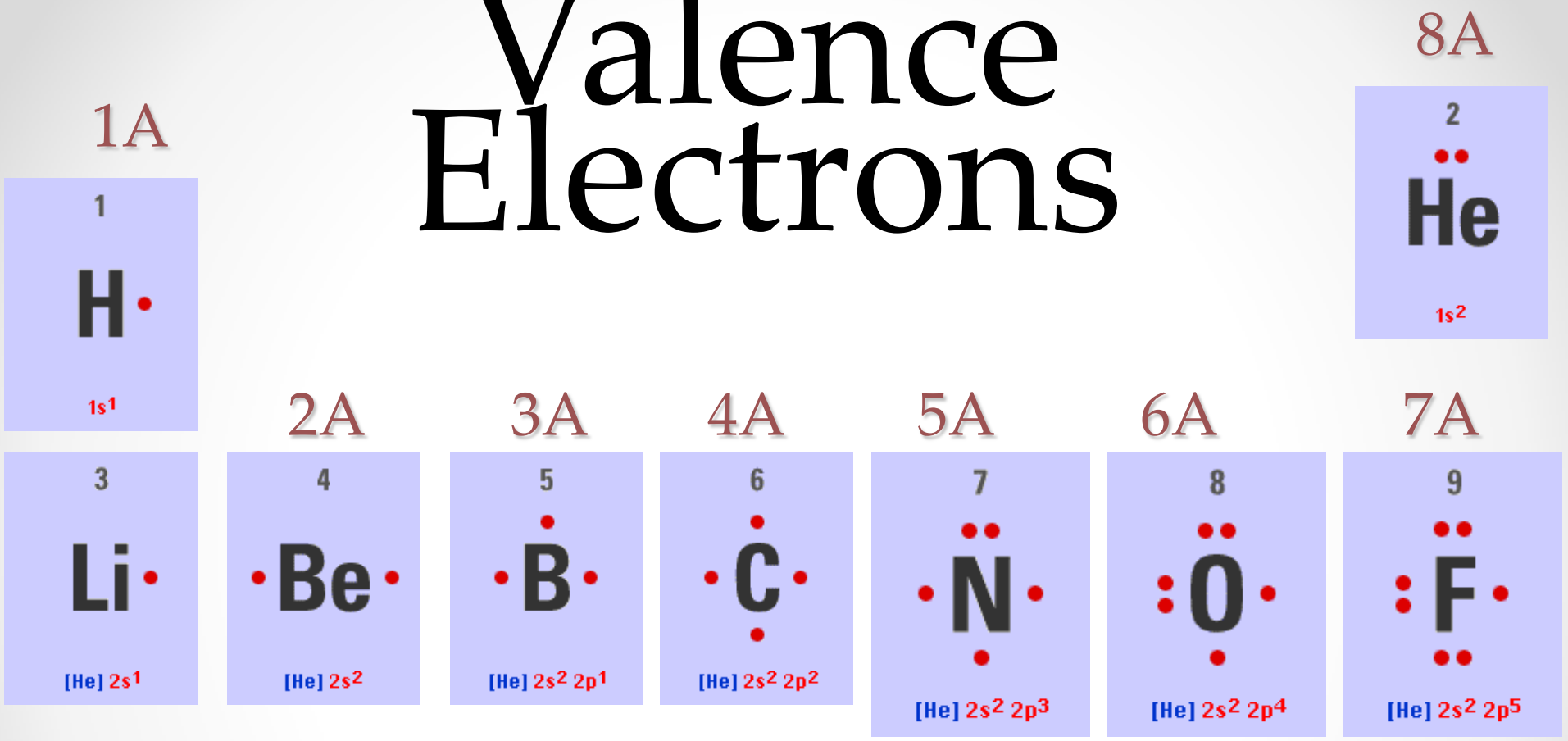
$^{35}_{17}Cl$ chlorine - 35

$^{37}_{17}Cl$ chlorine - 37

Alpha Decay

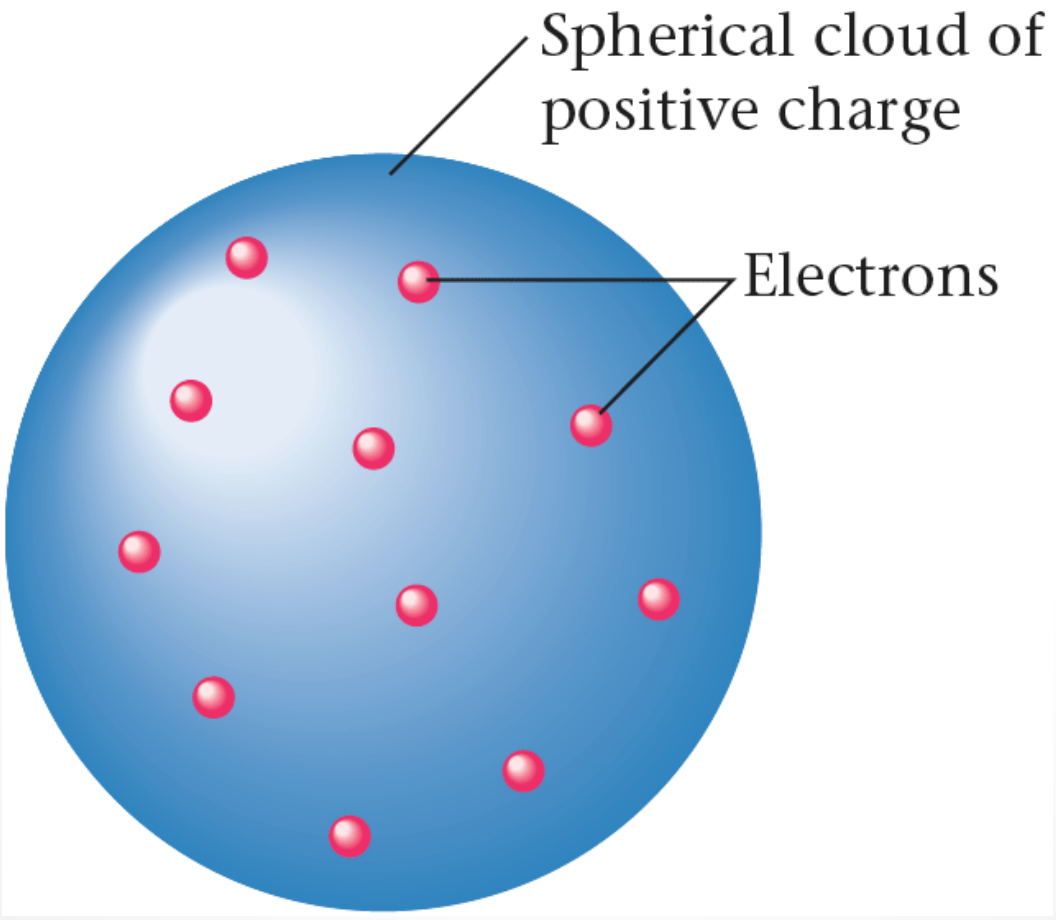

Parent nuclide
Daughter nuclides
$^{238}_{92}U \longrightarrow {}^{234}_{90}Th + {}^{4}_{2}He$

Valence Electrons



Number of valence electrons is equal to the Group number.

Plum Pudding Model By Thomson



Chemical Change

A change in which one or more substances are converted into different substances.

Physical Change

- **A change that occurs that does not change the identity of the substance.**
  - **Melting ice(change in state or phase)**
  - **Tearing paper**

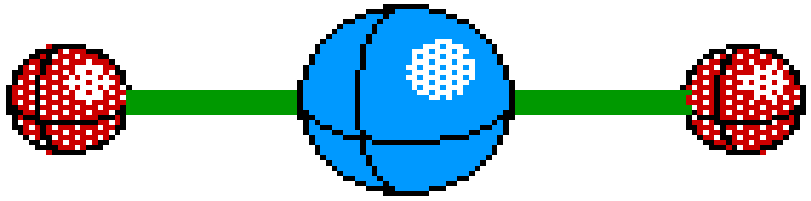
Linear

2 atoms attached to center atom

0 unshared pairs (lone pairs)

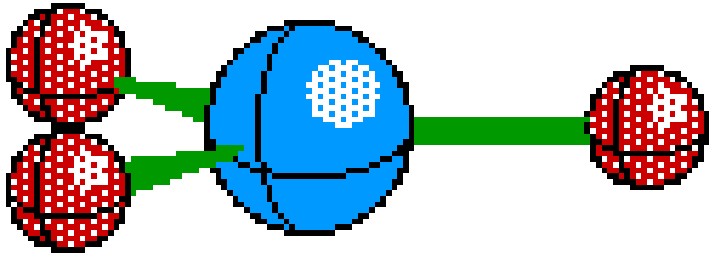
Bond angle = 180^{o}

Ex. : BeF_2



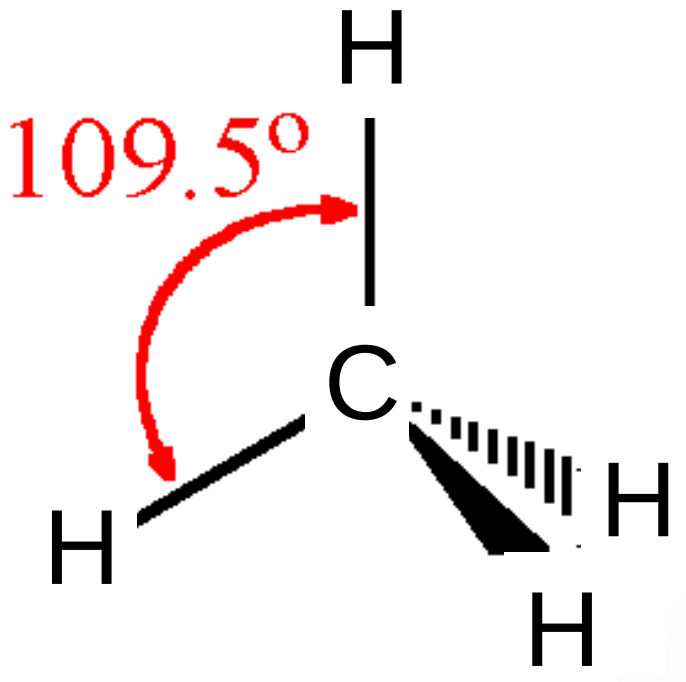
Trigonal Planar

- 3 atoms attached to center atom
- 0 lone pairs
- Bond angle = 120^{o}
- Ex. : AlF_3



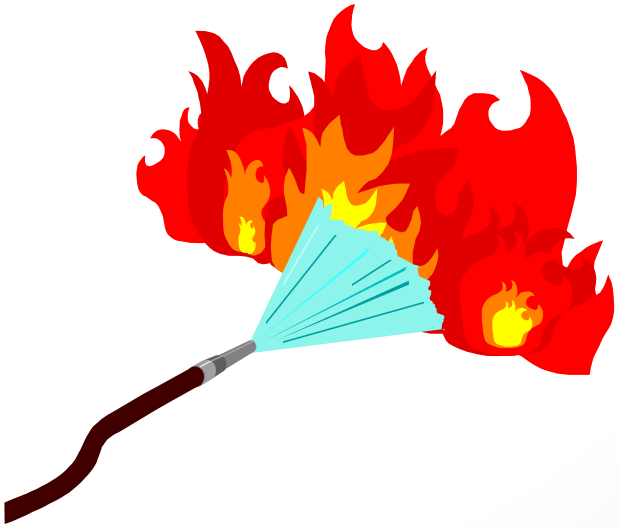
Tetrahedral

- 4 atoms bonded together.
- CH_4 =



Law of Conservation of Mass

In any ordinary chemical reaction, matter is not created nor destroyed.



Balanced Chemical Equation

Same numbers of each type of atom on each side of the equation

EXOTHERMIC

A change (e.g. a chemical reaction) that releases heat.

A release of heat corresponds to a decrease in enthalpy

Burning fossil fuels is an exothermic reaction

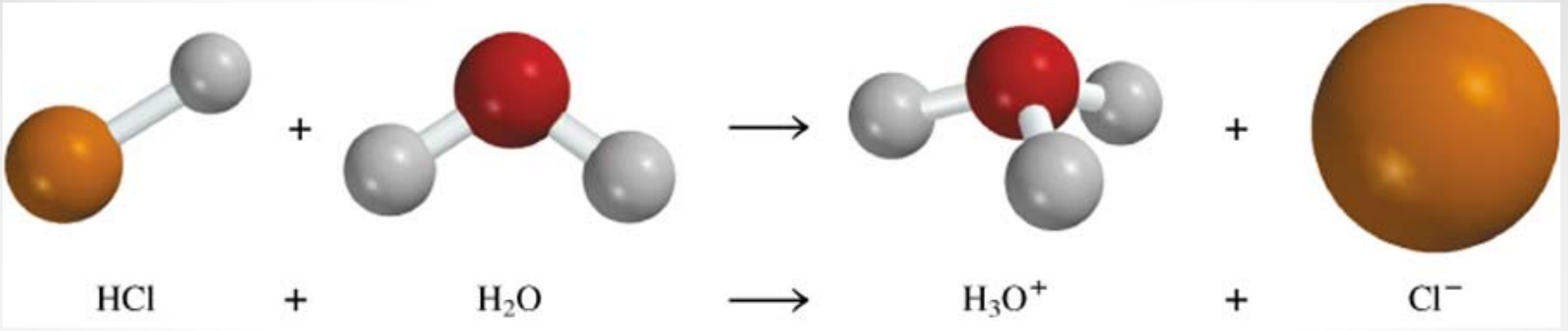
Endothermic

- A change (e.g. a chemical reaction) that requires (or absorbs) heat.

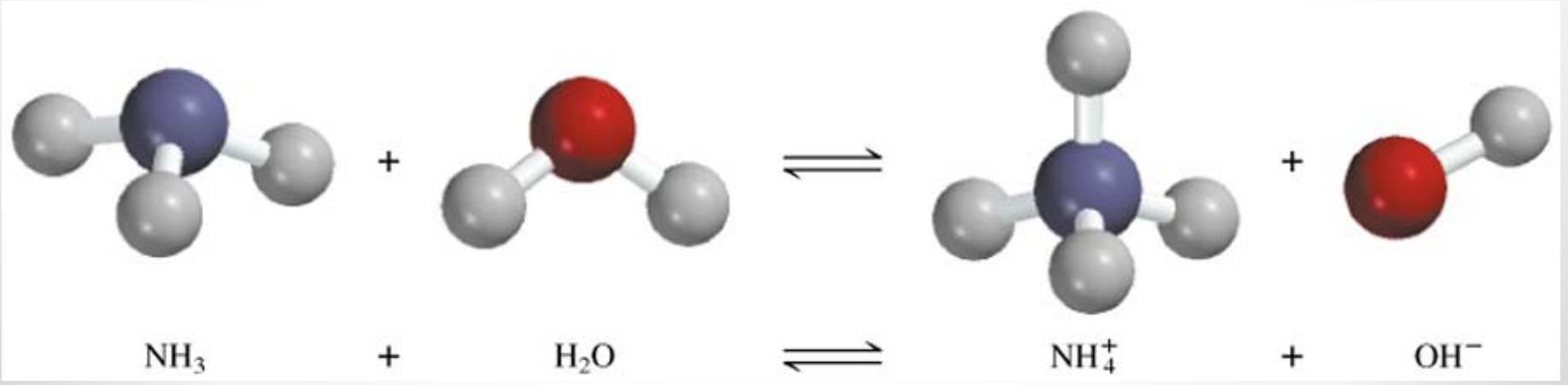
- An input of heat corresponds to an increase in enthalpy

Photosynthesis is an endothermic reaction (requires energy input from sun)

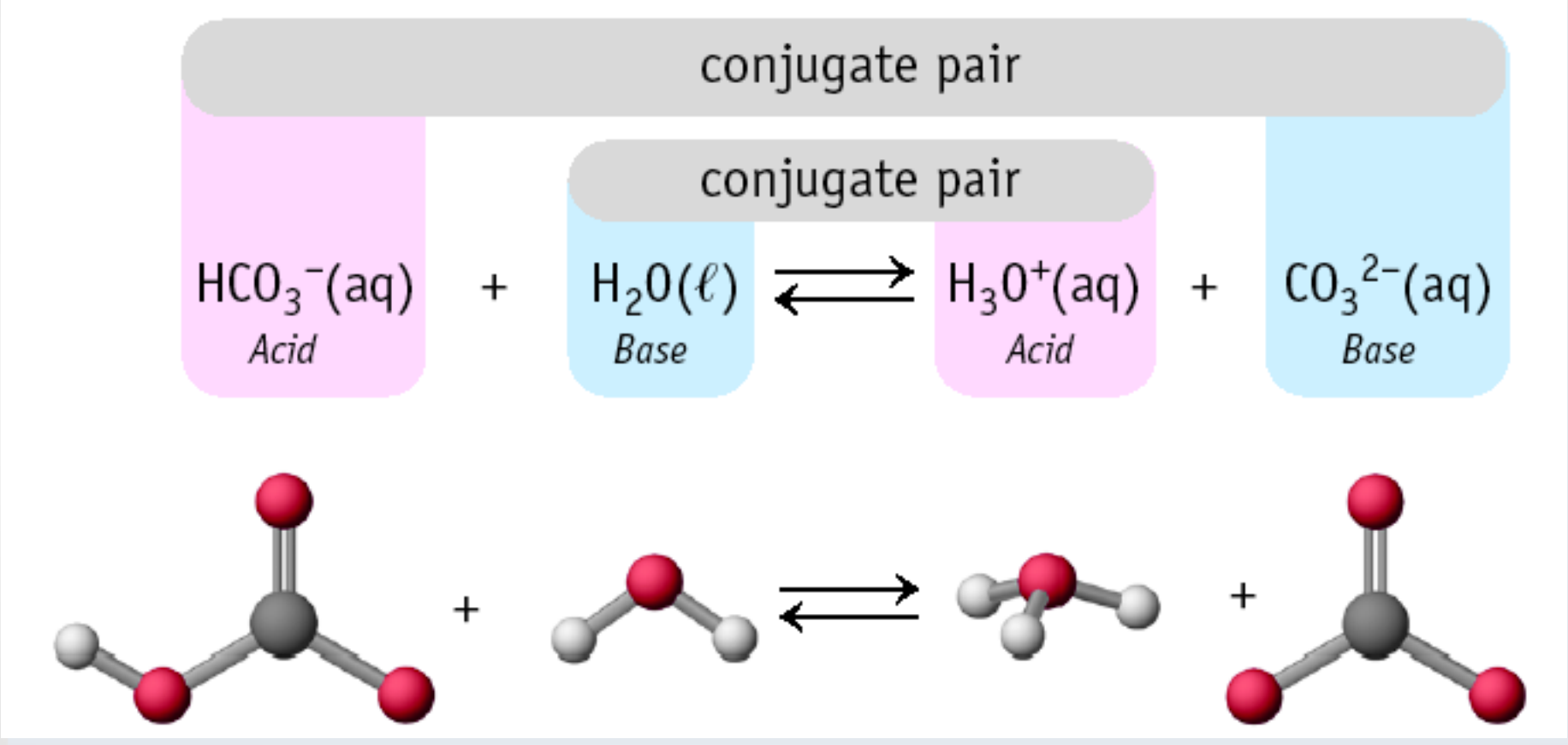
Arrhenius acid is a substance that produces H^+ (H_3O^+) in water



Arrhenius base is a substance that produces OH^- in water



Conjugate Pairs



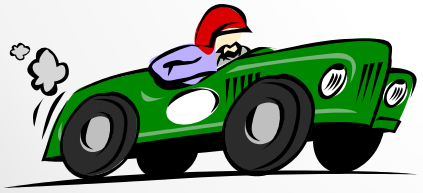
Cohesion

Helps insects walk across water

What is Energy?

Energy

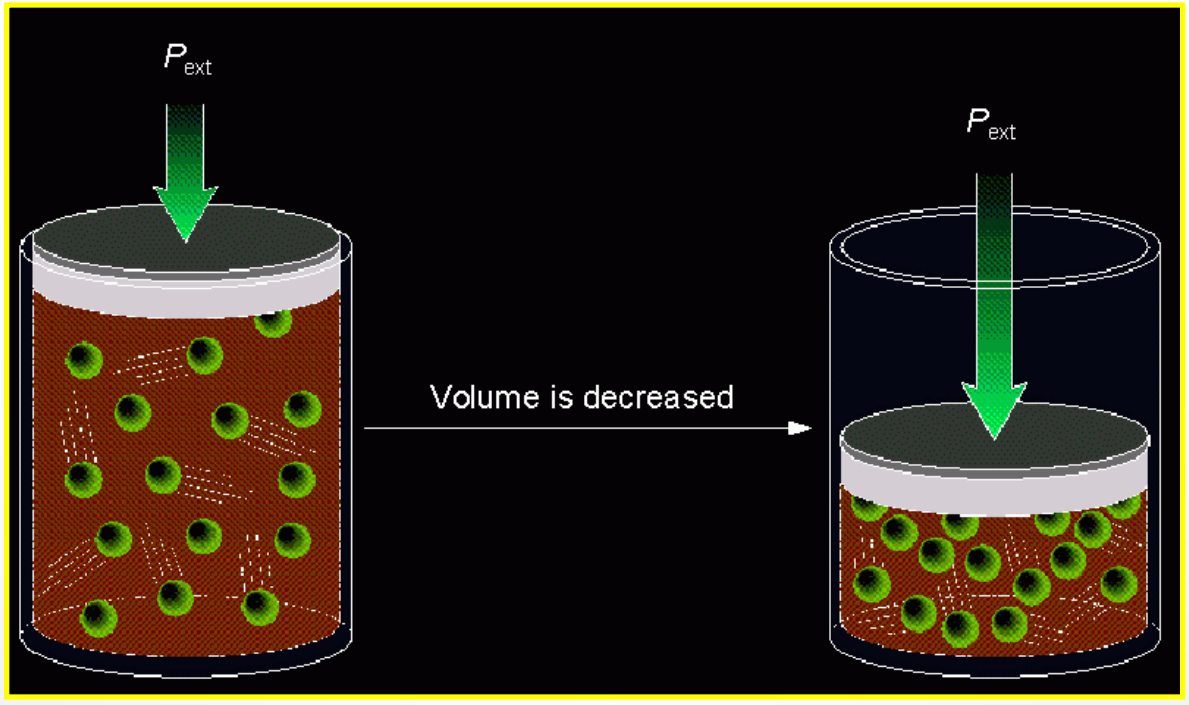
- **Kinetic energy (E_k)**
  - Energy due to motion
- **Potential energy (E_p)**
  - Energy due to position (stored energy)



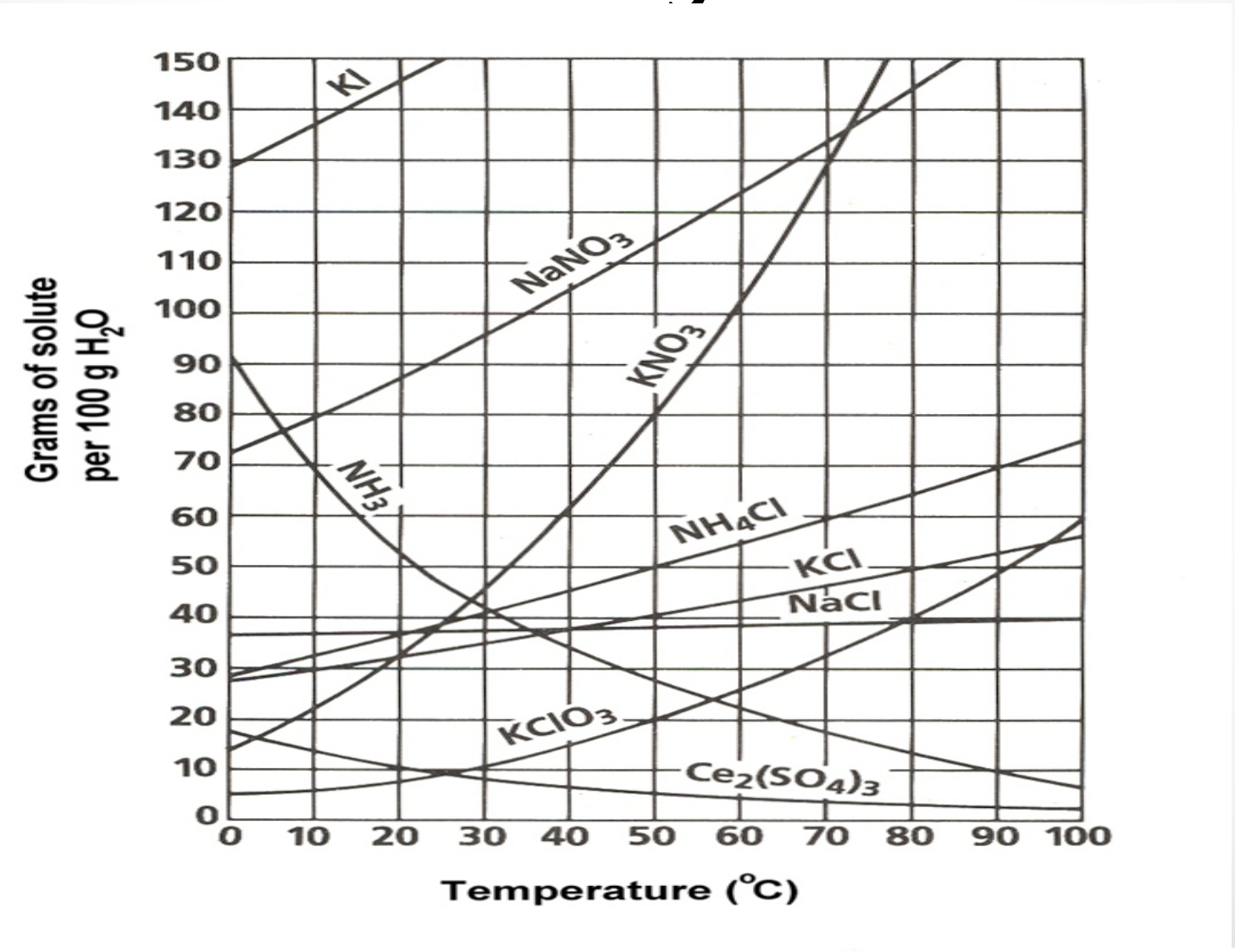
Boyle's Law

Gas pressure is inversely proportional to the volume, when temperature is held constant.

- *Equation:* $P_1V_1 = P_2V_2$ (T = constant)



Solubility Curve



World Geography

Word Wall

subsistence agriculture:

- ✓food is mostly consumed by farm family; basic needs

commercial industry:

- ✓employees come to central location and use company's equipment and resources

push factor:

- ✓things that cause a person to leave his/her country
  - *famine (lack of food)
  - *war
  - *unemployment

alliances:

- ✓regional alliances established to increase commerce between member nations
  - *European Union (EU)
  - *NAFTA
  - *Mercosur

Human Development Index (HDI):

- ✓categorize the development levels of nations
  - *less developed
  - *newly industrialized
  - *more developed

renewable resources:

- ✓takes a short time to replace, such as trees or water

nonrenewable resources:

- ✓resources which can only be used once or takes a long time to replace, such as coal or oil

colonization:

- ✓one country taking over another area to be used for their benefit
  - *colonialism
  - *colony

pandemics:

- ✓disease can spread quickly throughout the world

weather:

- ✓conditions at a particular time and place over a SHORT period; can change suddenly

republic:

- ✓people vote for leaders; leaders create and vote on laws

socialism:

- ✓collective social control of production planned by group

population pyramids:

- ✓graph showing % of males and females by age group for a population

commercial agriculture:

- ✓food is mostly sold to others

communism:

- ✓type of socialism; strong government plans and controls the production and distribution of goods and services

boundaries:

- ✓man-made or naturally created lines dividing parts of the earth's surface

genocide:

- ✓mass murder of people belonging to a particular cultural group

formal regions:

- ✓defined by characteristics that the whole region shares

primary source:

- ✓Information, such as a map, letter, photograph, diary, artifact, newspaper article, report, or interview, created by a person who was close to the event or issue at the relevant time

secondary source:

- ✓Information created by a person who researched the event or issue after it occurred, often by analyzing primary sources

erosion:

- process by which rock, sand, and soil are broken down and carried away

cottage industry:

- ✓individual makes goods in his or her home

erosion:

- process by which rock, sand, and soil are broken down and carried away

climate:

- ✓average weather conditions of a place over a LONG period of time

barriers:

- ✓obstacles, physical or human blocks to movement

spatial diffusion:

- ✓spread of phenomenon from its starting location
  - *Columbian Exchange
  - *spread of “Bubonic Plague”

desertification:

- ✓the process of changing into desert, lack of rainfall caused desert conditions to expand/grow

continentality:

- ✓position from the influence of the sea, especially regarding climate

democracy:

- ✓position from the influence of the sea, especially regarding climate

monsoons:

- ✓seasonal prevailing wind in the region of the Indian subcontinent and Southeast Asia

  *summer wet/ winter dry

sustainable development:

- ✓meeting today's wants and needs without reducing the ability of future generations to meet their wants and needs

weathering:

- ✓breaking down of rock lute smaller pieces (sediment)
- ✓Forces that cause weathering include wind, water, ice, chemicals, rain

rural:

- ✓country

urban:

- ✓city

pull factors:

- ✓things that attract a person to move to a new country
  - *jobs
  - *better way of life
  - *stable government

free enterprise:

- ✓voluntary participation by producers and consumers; consumer demand drives production; capitalism /market economy

gross domestic product:

- ✓measure a nation's income
- ✓total value of all goods and services produced within their country

4 parts on Earth:

1. lithosphere – rock part
2. atmosphere – air (gases)
3. hydrosphere – water
4. biosphere – lithosphere + atmosphere + hydrosphere

geographic zones:

1. polar (high latitude)
2. temperate (middle latitude)
3. tropical (low latitude)

affect climate:

1. latitude
2. elevation (sea level)
3. ocean currents
4. wind direction
5. mountain barriers

tectonic plates:

1. transform – sliding

EX: San Andreas Fault

2. convergent – subduction

EX: Andes Mts. South America

3. divergent – spreading

EX: volcanoes, lakes East Africa

4. convergent – collision

EX: Himalaya Mts. India, China

biomes: region

1. forest –

broadleaf – deciduous trees (colors)

needleleaf - coniferous trees (cones)

2. grasslands – flat regions with few trees

steppe, savannas, pampas

3. desert – conserve water

4. tundra – mosses and lichen

cultural regions:

- ✓North America
- ✓Latin America
- ✓Europe
- ✓North Africa
- ✓Sub-Sahara Africa
- ✓Middle East
- ✓Commonwealth of Independent States
- ✓China
- ✓Japan
- ✓Southeast Asia
- ✓Australia and Oceania