Math Symposium ~ Seasonal rounds …

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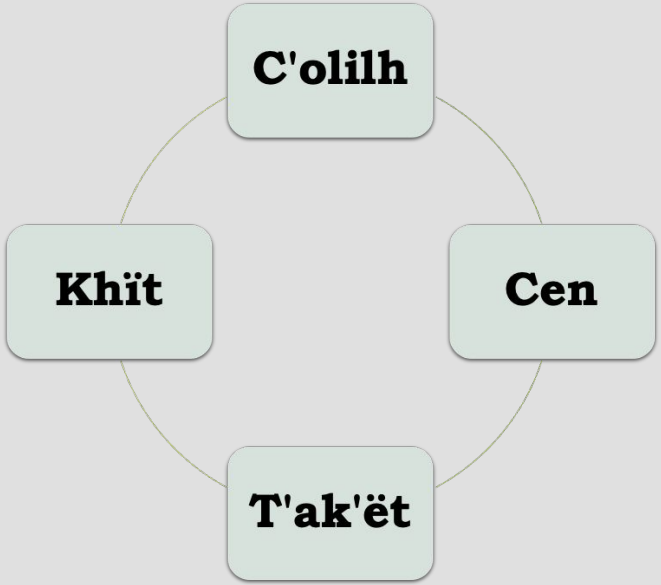
How can calendars be used for math?

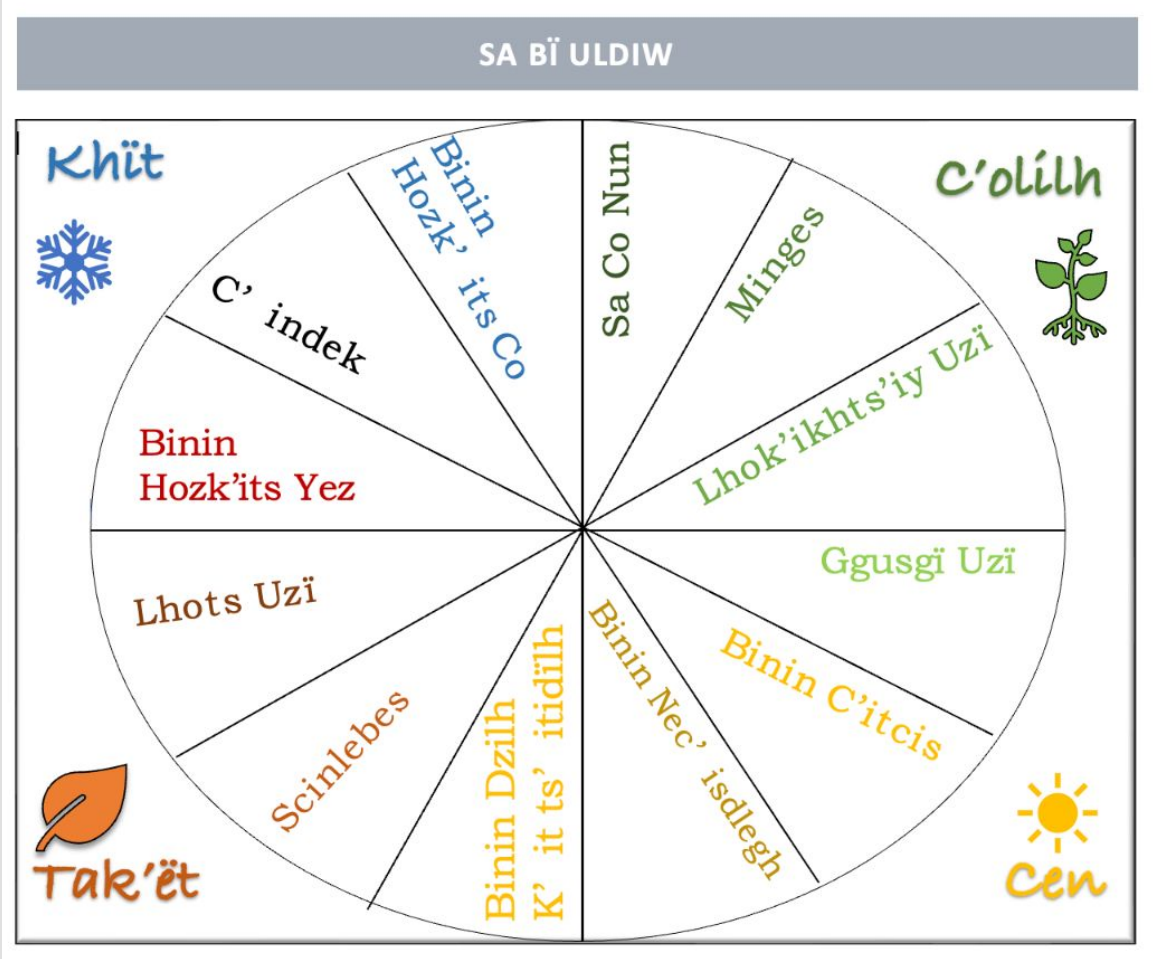
Counting

Fractions


FIRST QUARTER
WAXING CRESCENT
WAXING GIBBOUS
NEW
FULL
WANING CRESCENT
WANING GIBBOUS
THIRD QUARTER
SUNLIGHT

Witsuwit'en Sa Bï Uldiw





Coast Salish

From Vashun Island and South Puget Sound.

How many months can you count?

ʔiɬuẋ̌ stukʷalb
The oldest month
Making tools
Weaving baskets, mats & clothing
Time for winter ceremonies
Paddle
DECEMBER
ʔiɬsuq̓ʷaʔ stukʷalb
Younger brother month
Netting Ducks
Cutthroat trout enter streams
Digging & smoking clams
Clam basket
JANUARY
waq̓waq̓us
When frog talks
Netting & raking smelt & herring
Digging fern & cattail roots
Gathering herring eggs on hemlock branches
FEBRUARY
puphigʷed
Wind Blowing time
Cutting cedar for canoes
Adze for cutting & shaping wood
Picking & eating fresh nettles
MARCH
pədsčədadxʷ
Time to dry salmon
Hunting seals for or meat & oil
Preparing nettle fibers for cordage making
Returning chum salmon eaten fresh & smoked
NOVEMBER
pədskʷəxʷic
Time of silver salmon
Returning coho eaten fresh & smoked
Picking evergreen huckleberries
Gathering hazelnuts to store for winter
OCTOBER

APRIL
sqaqʷalab
Wind dies down
Digging & smoking clams, collecting mussels
MAY
padgadiʔ
saltwater shining
Fishing for returning Chinook salmon to eat fresh & smoked
JUNE
pastaqʷad
Time of salmonberries
Digging & pit-roasting camas bulbs
Harvesting cedar bark & roots
Picking & eating salmonberries
JULY
padqʷadixʷ
Time of creeping blackberries
Harvesting tule & cattails for baskets & mats
Mashing & drying blackberries, thimbleberries & others
AUGUST
padtaqa
Time of salal berries
Picking & drying salal berries
Digging horse clams to eat & smoke
Drying & smoking salmon
SEPTEMBER
padtalus
Time when salmon begin to run
Picking & drying blueberries
Hunting ducks & deer to eat fresh & dried
Building fish weirs in streams to catch fish

Fractions:

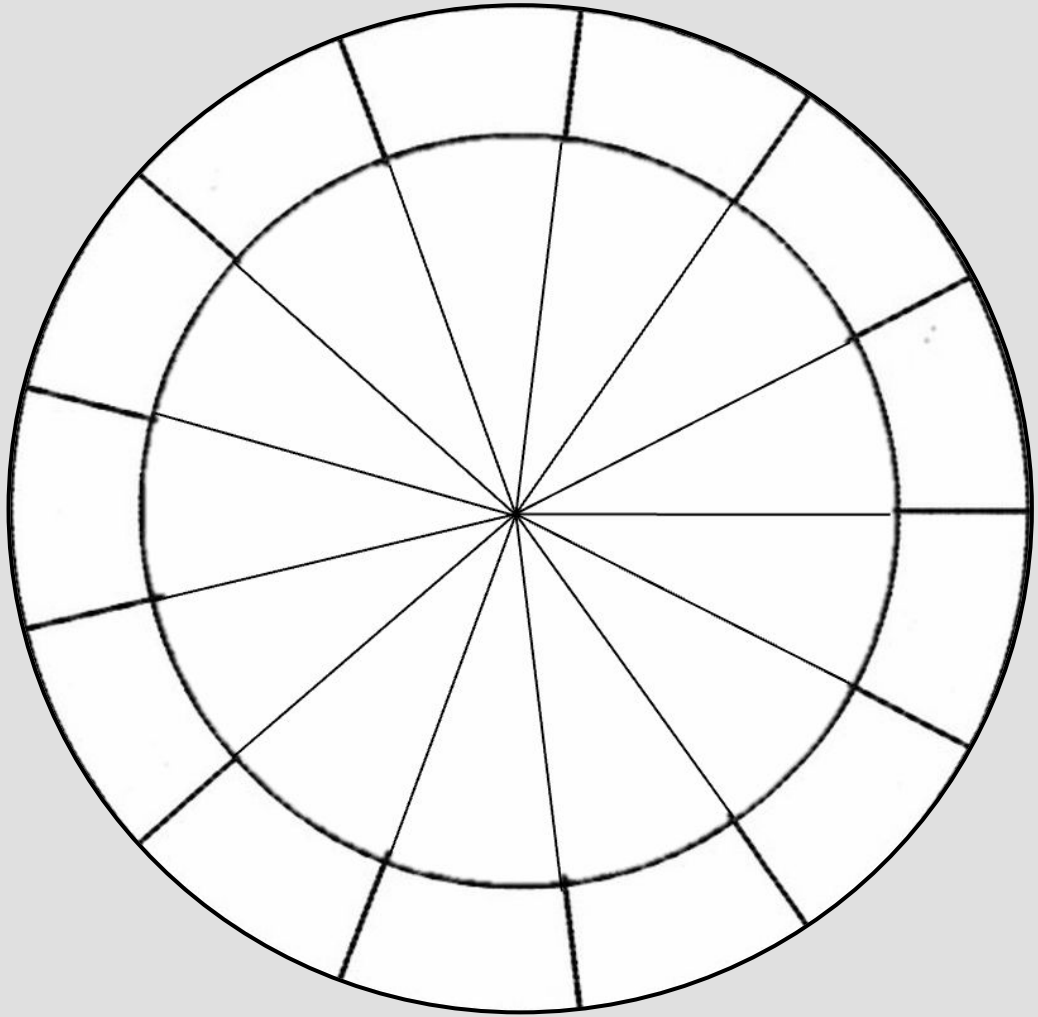
On a separate paper, get students to draw and shade in the sections.

- What time of the year does it snow?

6/12 months - November to May

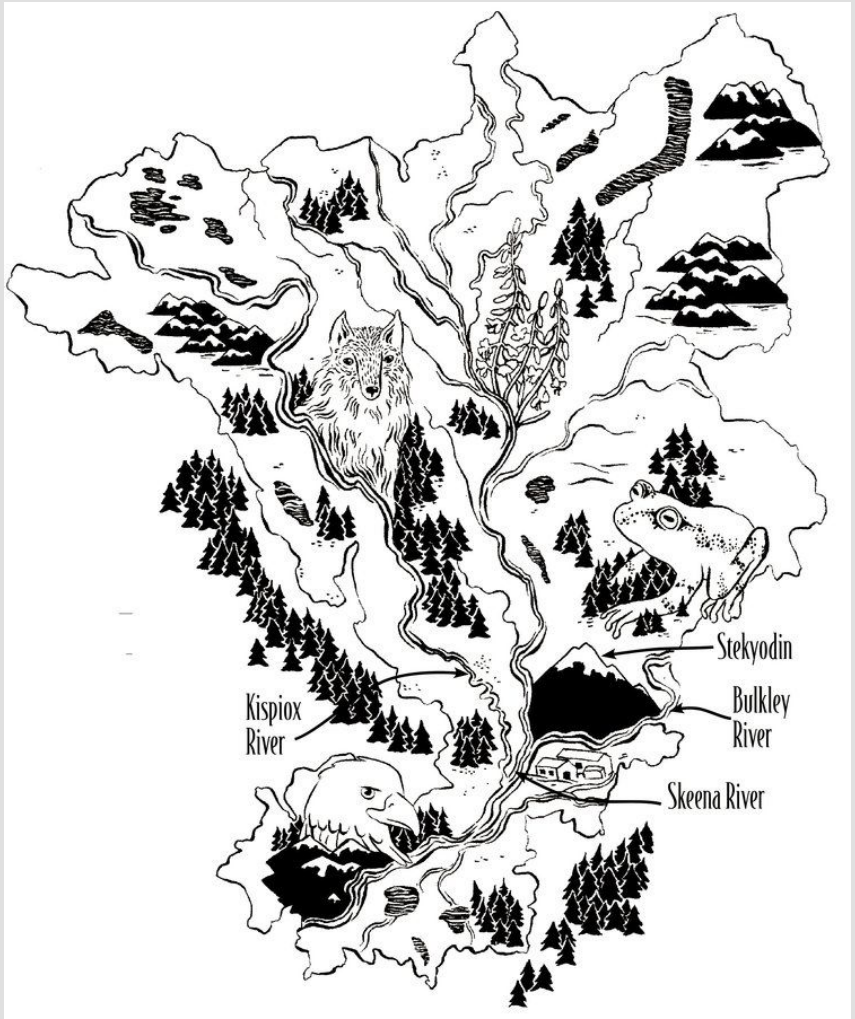
- Which months would we harvest clams?

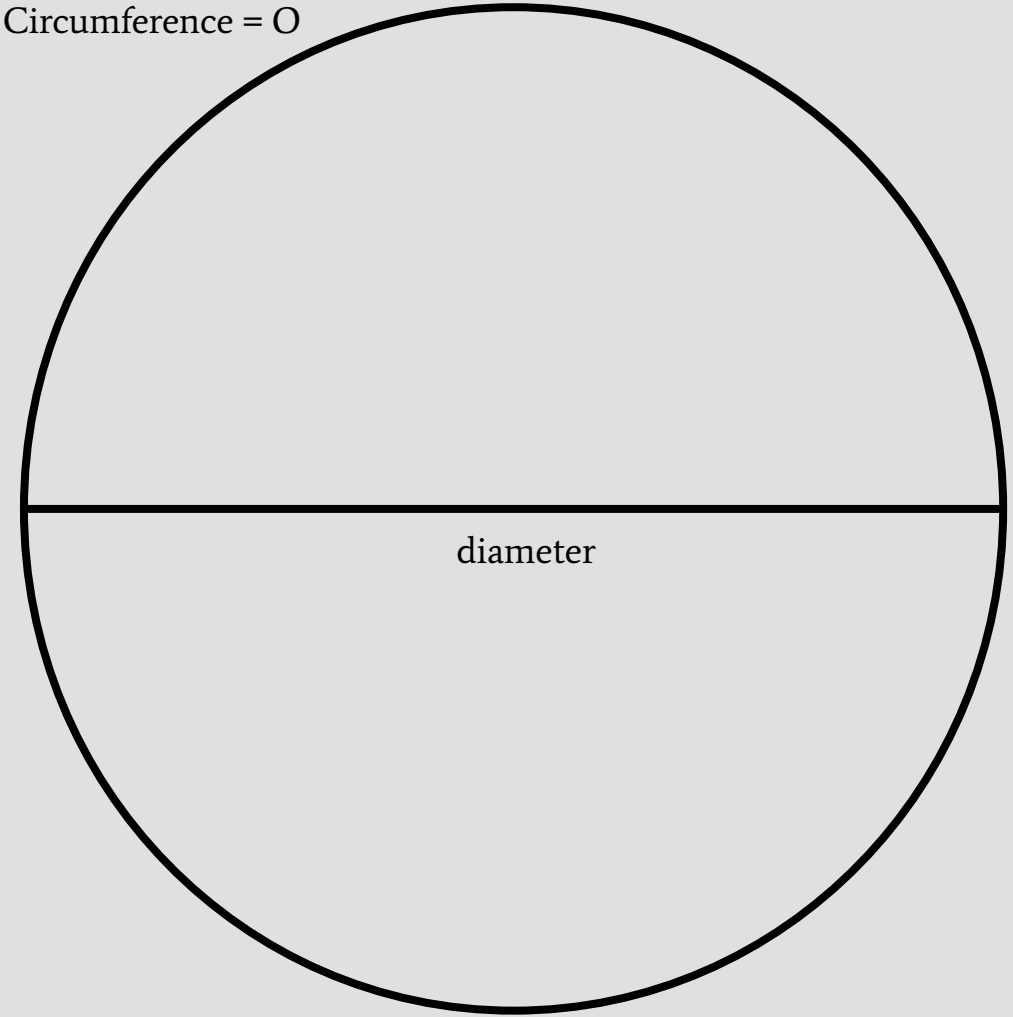
- Which months would we fish?



The Gitxsan

https://www.bretthuson.ca/gitxsan





The Area of a circle is known as the **circumference.**

$$C = 2 \pi r$$

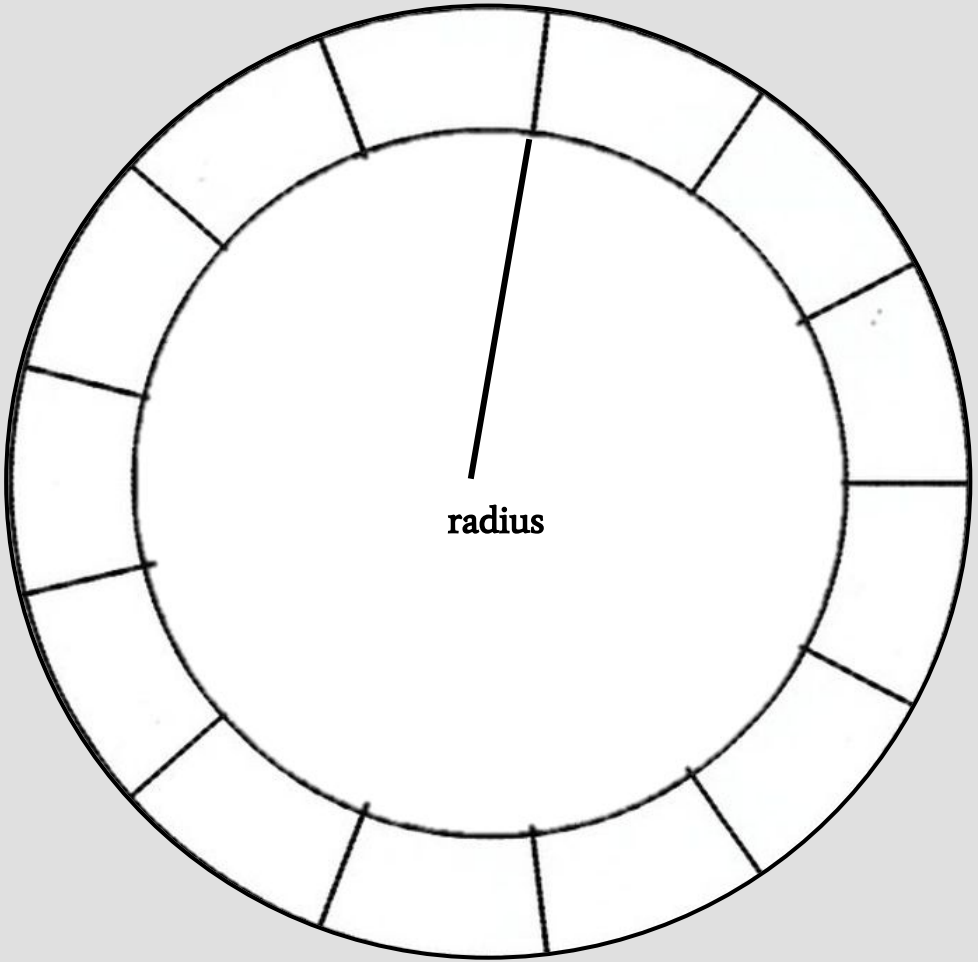
C = Circumference

π = (3.14)

R = radius

The horizontal line across the circle is the **diameter.**

$$d = 2r$$



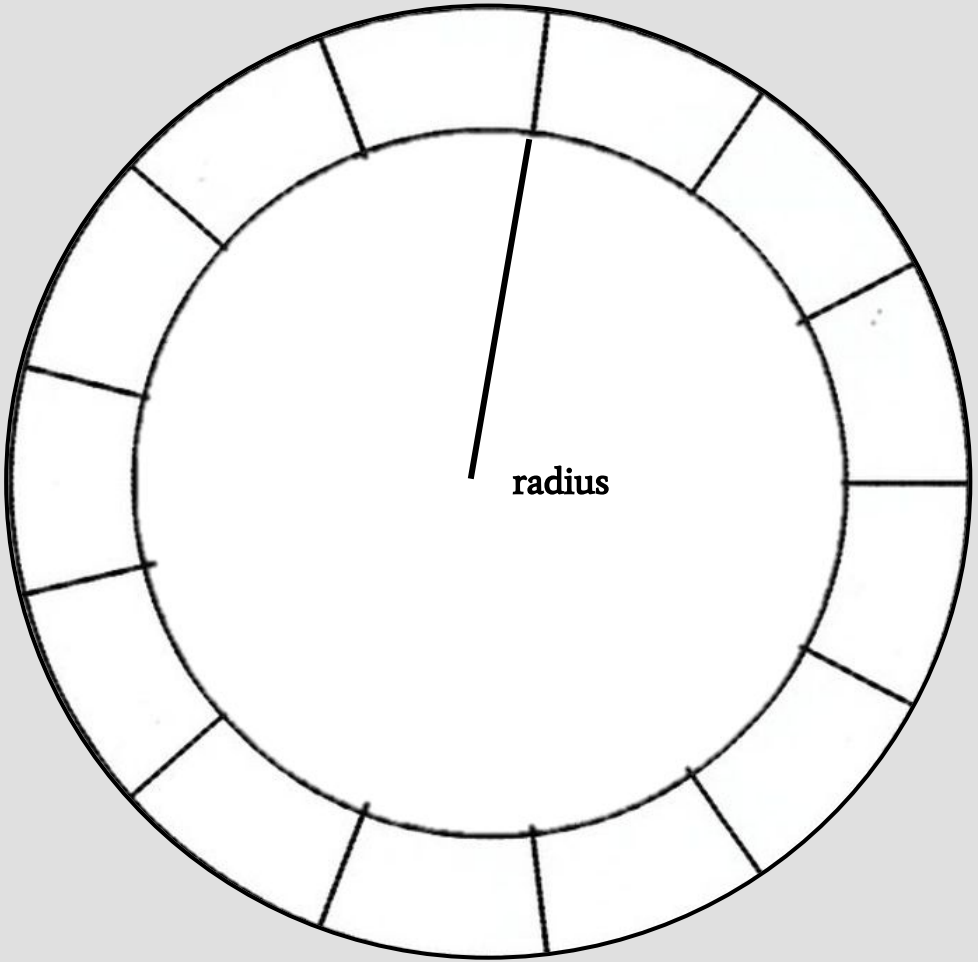
This is a 13 month calendar.
The Gitxsan have 13 moons.

We are going to find the radius to help them make their calendar.

When we find the radius, we can draw lines towards the middle of the circle.

$$r = \frac{C}{2\pi}$$

R = Radius
C = Circumference
π = Pie (3.14)



Radius

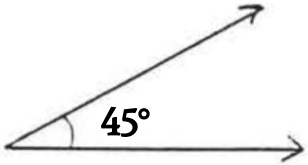
Radius is the straight line extending from the center of a circle of sphere to the circumference or surface.

R = Radius
C = Circumference
π = Pie (3.14)

$$r = \frac{C}{2\pi}$$

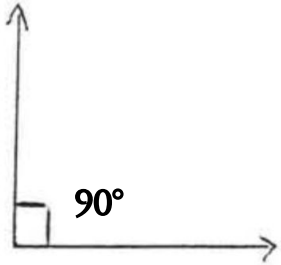
Sun Dial

Clocks
12 hour
24 hour



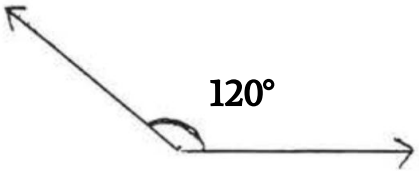
acute angle

2)



right angle

3)



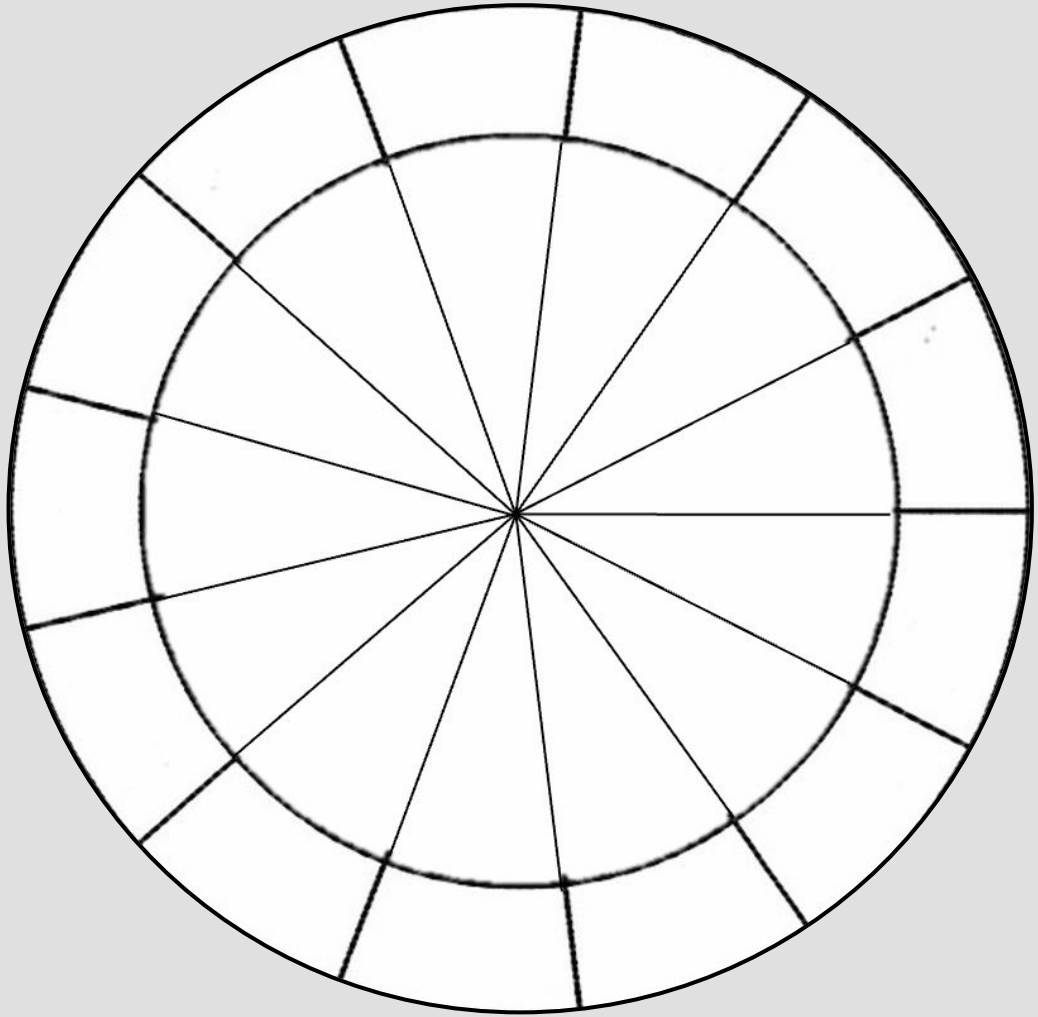
obtuse angle

4)

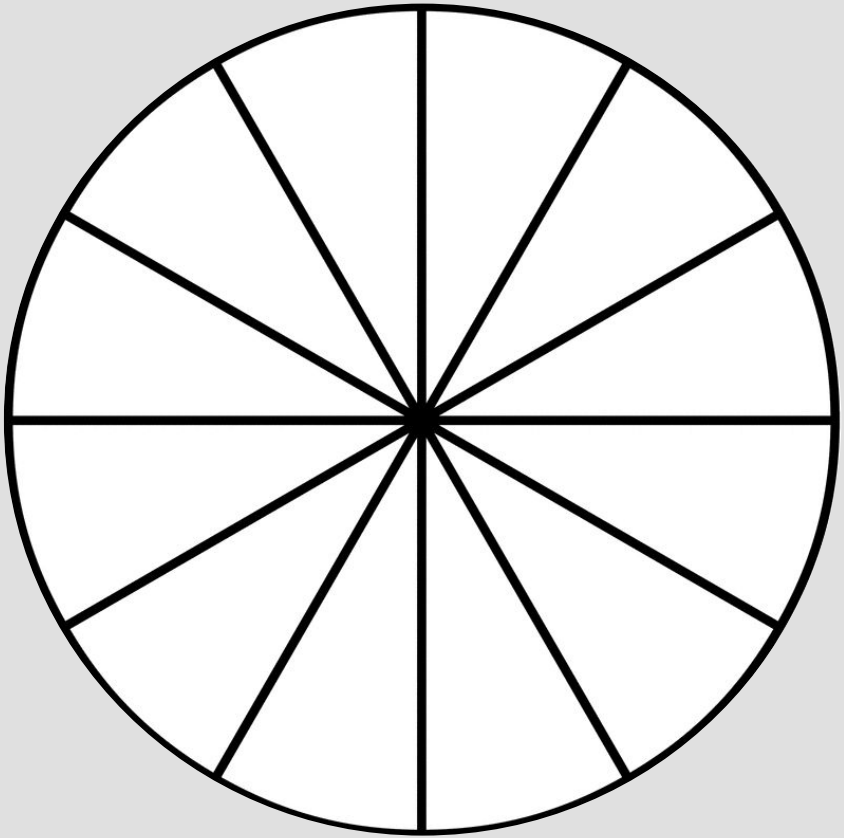
Straight Angle

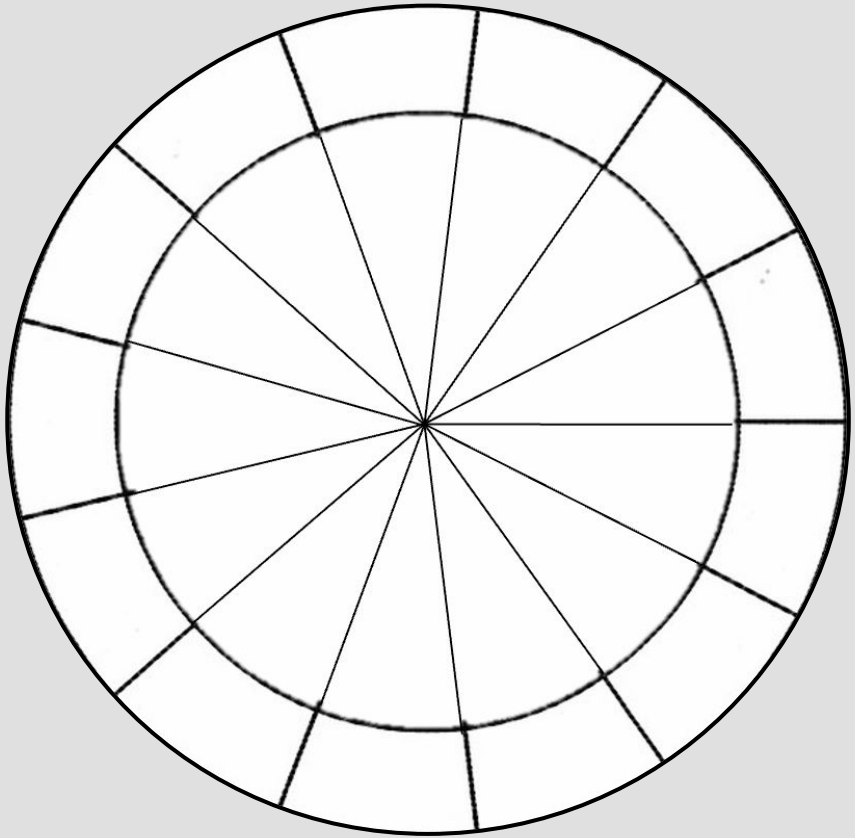
5) Reflex angle

1) Acute angle = 0° - 90°
2) Right angle = 90°
3) Obtuse Angle = between 90° and 180°
4) Straight angle =
5) Reflex angle = between 180° and 360°

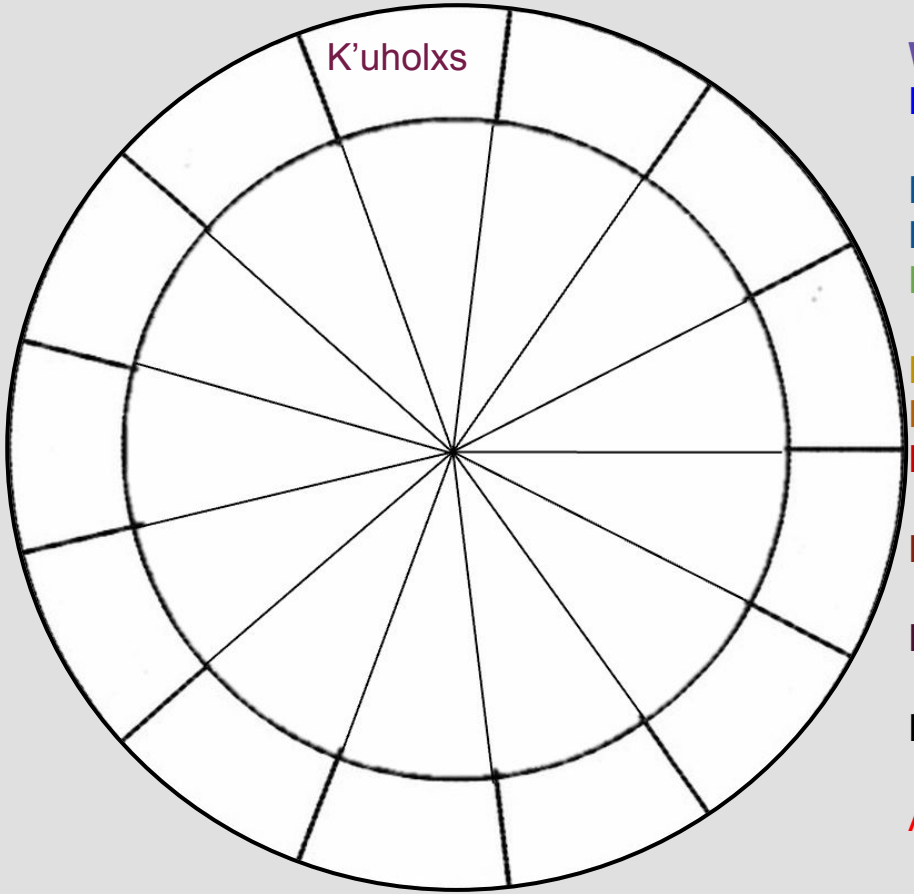


What other math might be in this diagram?





Gitxsan Calendar



K'uholxs - Stories and Feasting Moon - January
Lasa hu'mal - Cracking Cottonwood and Opening **Trails Moon** - February
Wihlaxs - Black Bear's Waking Moon - March
Lasa ya'a - Spring Salmon's Returning Home Moon - April
Lasa 'yanja - Budding Trees and Blooming Flowers Moon - May
Lasa maa'y - Gathering and Preparing Berries Moon - June
Lasa 'wiihun - Fisherman's Moon - July
Lasa lik'i'nxsw - Grizzly Bear's Moon - August
Lasa gangwiikw - Groundhog Hunting Moon - September
Lasa xsin laaxw - Catching-Lots-of-Trout Moon - October
Lasa gwineekxw - Getting-Used-to-Cold Moon - November
Lasa 'wiigwineekxw or Lasa gunkw' ats - Severe Snowstorms and Sharp Cold Moon - December
Ax wa - Shaman's Moon a blue moon - which is a second full moon in a single month

Open Schools - Seasonal Rounds

Link: https://www.openschool.bc.ca/elementary/my_seasonal_round/lesson_1.html

Talks about different communities and their different teachings about harvesting.

- **How to make birch bark baskets.**