



HOUSTONE
SCHOOL

Year 7 – 100% Book Term 1 (Part 2) 2022

NAME	
FORM GROUP	

Computer Science

Python 3 cheatsheet (the basics)



Interact with the user (input and output)

Print a message

```
print('Hello, world!')
```

Print multiple values (of different types)

```
ndays = 365  
print('There are', ndays, 'in a year!')
```

Asking the user for a string

```
name = input('What is your name? ')
```

Asking the user for a whole number (an integer)

```
num = int(input('Enter a number: '))
```

Decide between options

Decide to run a block (or not)

```
x = 3  
if x == 3:  
    print('x is 3!')
```

Decide between two blocks

```
mark = 80  
if mark >= 50:  
    print('pass!')  
else:  
    print('fail')
```

Decide between many blocks

```
mark = 80  
if mark >= 65:  
    print('credit!')  
elif mark >= 50:  
    print('pass!')  
else:  
    print('fail')
```

elif can be used without else

elif can be used many times

Are two values equal?

```
x == 3
```

△ two equals signs, not one

Are two values not equal?

```
x != 3
```

Less than another?

```
x < 3
```

Greater than another?

```
x > 3
```

Less than or equal to?

```
x <= 3
```

Greater than or equal to?

```
x >= 3
```

The answer is a Boolean:

```
True or False
```

String manipulation

Compare two strings

```
msg = 'hello'  
if msg == 'hello':  
    print('howdy')
```

Less than another string?

```
if msg < 'n':  
    print('a-m')  
else:  
    print('n-z')
```

△ strings are compared character at a time (lexicographic order)

Is a character in a string?

```
'e' in msg
```

Is a string in another string?

```
'ell' in msg
```

Convert to uppercase

```
msg.upper()  
also Lower and title
```

Count a character in a string

```
msg.count('l')
```

Replace a character or string

```
msg.replace('l', 'x')
```

Delete a character or string

```
msg.replace('l', '')
```

Is the string all lowercase?

```
msg.islower()
```

also isupper and istitle

Text (strings)

Single quoted

```
'perfect'
```

Double quoted

```
"credit"
```

Multi-line

```
'''Hello,  
World!'''
```

Add (concatenate) strings

```
'Hello' + 'World'
```

Multiply string by integer

```
'Echo...' * 4
```

Length of a string

```
len('Hello')
```

Convert string to integer

```
int('365')
```

Variables

Creating a variable

```
celsius = 25
```

Using a variable

```
celsius*9/5 + 32
```

Whole numbers (integers)

Addition and subtraction

```
365 + 1 - 2
```

Multiplication and division

```
25*9/5 + 32
```

Powers (2 to the power of 8)

```
2**8
```

Convert integer to string

```
str(365)
```

Repeat a block (a fixed number of times)

Repeat a block 10 times

```
for i in range(10):  
    print(i)
```

Sum the numbers 0 to 9

```
total = 0  
for i in range(10):  
    total = total + i  
print(total)
```

Repeat a block over a string

```
for c in 'Hello':  
    print(c)
```

Keep printing on one line

```
for c in 'Hello':  
    print(c, end=' ')
```

Repeat a block over list (or string) indices

```
msg = 'I grok Python!'  
for i in range(len(msg)):  
    print(i, msg[i])
```

Count from 0 to 9

```
range(10)
```

△ range starts from 0 and goes up to, but not including, 10

Count from 1 to 10

```
range(1, 11)
```

Count from 10 down to 1

```
range(10, 0, -1)
```

Count 2 at a time to 10

```
range(0, 11, 2)
```

Count down 2 at a time

```
range(10, 0, -2)
```

Putting it together: Celsius to Fahrenheit converter

Ask the user for a temperature in degrees Celsius

```
celsius = int(input('Temp. in Celsius: '))
```

Calculate the conversion

```
fahrenheit = celsius*9/5 + 32
```

Output the result

```
print(fahrenheit, 'Fahrenheit')
```



Learn more in *Intro. to Programming @ groklearning.com*



English – War poetry

Key Vocabulary	
1. propaganda	Information, especially of a biased or misleading nature, designed to promote a cause
2. patriotism	Love for one's country
3. cowardice	Lack of bravery
4. glorification	the action of describing or representing something as admirable, especially unjustifiably
5. trench	A deep and narrow excavation in the ground, used heavily during World War 1
6. cynicism	Scepticism, or the belief that something is 'too good to be true'
7. betrayal	The breaking of trust or loyalty; treachery
8. slaughter	The senseless killing of animals or a group of people
9. remembrance	The act of remembering and honouring the dead
10. commemorate	To recall and show respect for something
11. respect	Politeness, honour and care shown towards something or someone
12. tone	the general character or attitude of a place, piece of writing, situation
13. air raid	An offensive operation carried out by aircraft, usually in which bombs are dropped on targets
14. evacuee	A person evacuated or removed from a place of danger
15. adventure	an unusual and exciting or daring experience
16. alienation	The feeling of disconnection or separation from a group
17. guerrillas	Members of an irregular, usually politically motivated armed force that combats stronger regular forces, such as the army or police
18. ethnic cleansing	The systematic, forced removal of ethnic, racial and religious groups from a given area
19. civil war	A war which takes place between the members of the same country
20. elegy	A poem of serious reflection, typically a lament for the dead
21. desensitization	A process that reduces emotional response to something through prolonged exposure to it
22. numb	A lack of physical and/or emotional feeling
23. Armistice	An agreement between opposing armies to stop fighting
24. war memorial	A structure that celebrates a war and/or commemorates those who fought in it

Knowledge Organiser – War Poetry

Key Figures	
25. Jessie Pope	A journalist and poet who published propaganda poems encouraging young men to fight in World War 1
26. Wilfred Owen	Perhaps the most famous war poet. Owen wrote poetry in the trenches in World War 1, and from Craiglockhart Hospital. He was killed in action one week before the end of the war
27. Carol Ann Duffy	The current Poet Laureate. Duffy has written poetry reflecting on the horror of war and imagining an ideal world in which it hasn't happened

Poetry Terminology	
28. Alliteration	The repetition of the same consonant sound, especially at the beginning of words.
29. Connotation	An implied meaning
30. Enjambment	A line of verse which flows onto the next line without pause
31. Imagery	The use of words to create a picture or image in your head
32. Metaphor	Direct comparison saying one thing IS another (not 'like').
33. Metre (or Meter)	The regular use of unstressed and stressed syllables in poetry (iambic pentameter and dactylic for example).
34. Personification	Giving living (not necessarily 'human') attributes to inanimate or non-human things - is a type of metaphor.
35. Rhyme scheme	The pattern of rhymes in a poem
36. Rhythm	The beat as created through the meter of a poem
37. Simile	Direct comparison using like or as
38. Stanza	The blocks of lines into which a poem is divided - a 'verse'
39. Structure	The way a poem or play or other piece of writing has been put together
40. Symbol	Like the use of images, symbols present things which represent something else.

Geography – Map Skills Knowledge Map and Retrieval Practice

1. **Atlases** are a book of maps and charts, they show us maps on a global scale, with information about each country in a series of charts.
2. If we want more detailed maps, then we wouldn't use an atlas, we would use **ordnance survey maps**. Ordnance survey maps are highly accurate, with a scale of 1:200 or 1:500.
3. Ordnance survey maps contain a wide range of information for the map reader to use. These maps contain,

- Symbols,
- Grid References,
- Compass Rose,
- Scale & Distance,
- Contour Lines



4. **Symbols** show the reader what a building or what a point of interest might be.
5. **Grid references** show a location with a series of vertical and horizontal grid lines, identified by numbers or letters. Grid references can be either 4 figure or 6 figure.
6. **The compass rose** shows directions on a map. There are primary directions (north, south, east, west). There are secondary directions (north east, north west, south east, south west)
7. **Scale** is a ratio between distance on a map and distance in real life. For example, 1cm on the map might equal 1 mile on the map. **Distance** is the space between 2 points, either on a map or in real life.

Map Skills Key Terms

1. Map	A visual representation of land or sea showing physical and human features, such as mountains, towns and cities.
2. Atlas	A book of maps and charts.
3. Symbol	A visual representation of a building or a point of interest used on a map.
4. Compass Rose	Printed on a map showing the compass directions.
5. Grid Reference	A map reference indicating a location in terms of a series of vertical and horizontal grid lines identified by numbers or letters.
6. Contour Lines	Lines on a map joining points of equal height.
7. Scale	Ratio between distance on a map and distance on the ground.
8. Distance	The length of space between 2 points.
9. Ordnance Survey	Create highly accurate maps, they use a 1:200 or a 1:500 scale on their maps.
10. Hemisphere	Half a sphere, in this case, the globe. There is the northern, southern, eastern, and western hemispheres.

Retrieval Practice Questions

Retrieval Practice Questions	Answers
1. Name 3 features a good map should have.	A key, a scale, detailed features.
2. Name the 3 types of bearings found on a compass rose.	Primary, secondary, and tertiary bearings
3. Name the primary bearings found on a compass rose.	North, East, South, West
4. Name the secondary bearings found on a compass rose.	North East, North West, South East, South West
5. Name the tertiary bearings found on a compass rose.	North North East, East North East, East South East, South South East, South South West, West South West, West North West and North North West.
6. A completed compass rose has how many points?	16
7. Name the scale used for OS Explorer Maps.	1:25,000
8. Name the scale used for OS Landranger Maps.	1:50,000
9. What does the abbreviation, OS stand for?	Ordnance Survey
10. Which type of map is better for walking?	Explorer because it is more detailed

Geography 2

OS Map Symbols

1:25 000 scale Explorer™

History 1

Constantinople and Baghdad knowledge organizer

Map of key locations



Names

- 1) **al-Mansur** – Caliph who built Baghdad
- 2) **Caliph** – Islamic emperor, ruler of the Caliphate (empire)
- 3) **empire** – territories ruled over by an emperor
- 4) **Abbasid dynasty** – ruling family; al-Mansur was the first Abbasid caliph
- 5) **Arabs** – people from Arabia, the first Muslims, who conquered an extensive empire outside Arabia after 650
- 6) **Makkah** – holy city of Muslims, in Arabia; Muslims pray facing the direction of Makkah, five times a day

Dates

- 324**- Constantinople founded by Emperor Constantine
- 532-7**- Emperor Justinian built Hagia Sofia in Constantinople
- 762**- Baghdad founded by al-Mansur
- 1028-1050** -Zoe was empress of Constantinople

Religion

- 21) **Islam** – religion of followers of the prophet Muhammed
- 22) **Muslim** – follower of Islam
- 23) **mosque** – place of worship for Muslims
- 24) **Christianity** – religion of followers of Jesus
- 25) **Christian** – follower of Christianity
- 26) **church** – place of worship for Christians
- 27) **Hinduism** – ancient religion of India
- 28) **Hindu** – follower of Hinduism

Empires

- 7) **Constantinople** – capital of the Byzantine Empire
- 8) **Emperor Constantine** – Roman emperor who founded Constantinople in 324 and introduced toleration for Christians in the Roman Empire
- 9) **Byzantine Empire** – developed from the former eastern Roman Empire, which preserved much Ancient Greek language and culture
- 10) **Roman Empire** – territories in Europe, the Mediterranean and North Africa, ruled by the city of Rome between c.750BC and 450AD
- 11) **Ancient Greece** – civilisation in Greece and the eastern Mediterranean between c.800BC and 400AD

Routes

- 12) **River Tigris and River Euphrates** – Baghdad was built between these two rivers, in a region known as Mesopotamia
- 13) **Silk Roads** – trade routes across Asia connecting Europe/Africa and the Islamic empire to China

Knowledge

- 14) **Euclid** – ancient Greek mathematician
- 15) **Ptolemy** – ancient Greek astronomer
- 16) **Galen** – ancient Greek doctor
- 17) **al-Razi (Rhazes)** – Baghdad doctor
- 18) **geometry** – mathematics of shapes
- 19) **astronomy** – study of the stars and planets
- 20) **astrology** – making predictions using the stars and planets

Other:

- House of Wisdom – a building housing books and scholars in Baghdad
- madrasa – a place of education in Baghdad
- architect – designer of buildings
- engineer – uses mathematical and scientific knowledge to work out how to construct buildings
- irrigation – system for watering crops

History 2

Christian Europe in the early medieval period

1) Martyrs – Christians who had died for their faith.

2) Saints – **martyrs** and other Christians who had led holy lives **Saints** were believed to have the power to:

- Speak to God to get his help for a living person or for the soul of someone who had died (**intercession**)
- Perform **miracles**

3) Miracle – an impossible or unlikely event believed to be the work of God or a **saint**, for example healing a sick person

4) Hermits – religious men who lived alone and devoted their lives to **praying** to God.

5) Monasteries were built for groups of hermits, called **monks**, who formed a community and devoted their lives to God. As part of their religious work, monasteries also provided **education**, **care for the sick** and **hospitality** for travellers.

6) Relics – bones or other remains of a saint. Christians believed that a saint's relics were a way to make contact with the saint.

7) Shrines and **reliquaries** were built to house the relics of saints. **Pilgrims** made **pilgrimages** to visit **shrines** to pray to **saints** asking them for **miracles** and **intercession**. They might pray for healing or forgiveness for themselves or a family member.

8) Hagiographies – stories written down about the lives, deaths and miracles of saints.



9) churches: built for Christians to worship in.

10) parish: The area around each church. Each parish had a church and a **priest** who led the worship in the church.

11) tithe: a tax paid by the people living in the parish to pay for the priest and the church.

12) Diocese : group of **parishes** in one area. A **bishop** was in charge of all the priests and churches in a **diocese**.

13) Mass: a service which celebrated the events at the end of Jesus's life using bread and wine. Performed by priests and bishops.

14) Sins: bad deeds which broke Christian religious rules. These might be serious crimes such as murder, or more minor acts such as lying.

15) penance: Christians were supposed to **confess** their **sins** to a priest and he would give them something to do to show they were sorry. This would give them absolution – God's forgiveness.

16) Judgement Day – after they died, a person's soul would be weighed; too many sins would mean they went to **hell**, but good deeds and the intercession of the saints could ensure they went to **heaven**

Timeline

301 – Foy killed for refusing to give up her Christian faith

380 – Christianity became official religion in the Roman Empire

395 – Roman Empire split into Eastern and Western empires

476 – Western Roman empire collapsed

801 – Dado the hermit founded the monastery at Conques

876 – monk Arinisdus stole Foy's remains and brought them to Conques

940-980 and 1050-1100 – larger churches built in Conques to accommodate pilgrims visiting Foy's shrine

Spanish 1

Vocabulary 5a – Pets

01 – ¿Tienes mascotas?	Do you have any pets?
02 – Tengo un caballo	I have a horse
03 – Tengo una cobaya	I have a guinea pig
04 – Tengo un conejo	I have a rabbit
05 – Tienes un gato	You have a cat
06 – Tienes un perro	You have a dog
07 – Tienes un pez	You have a fish
08 – Tiene un ratón	He/She has a mouse
09 – Tiene una serpiente	He/She has a snake
10 – No tengo mascotas	I don't have any pets

Vocabulary 5b – Colours

01 – ¿Cómo es? / ¿Cómo son?	What is it like? / What are they like?
02 – Blanco/a	White
03 – Amarillo/a	Yellow
04 – Negro/a	Black
05 – Rojo/a	Red
06 – Verde	Green
07 – Marrón	Brown
08 – Azul	Blue
09 – Rosa	Pink
10 – Naranja	Orange

Vocabulary 6a – Small Words

01 – No	No / Not
02 – Sí	Yes
03 – Mi	My (singular)
04 – Mis	My (plural)
05 – Tu	Your (singular)
06 – Tus	Your (plural)
07 – Su	His / Her (singular)
08 – Sus	His / Her (plural)
09 – Mi cantante favorita	My favourite singer
10 – Su programa favorito	His / Her favourite programme

Spanish 2

Vocabulary 6b – Small Words

01 – Mi hermana	My sister
02 – Mis hermanos	My siblings / My brothers
03 – Tu perro	Your dog
04 – Sus mascotas	His / Her pets
05 – muy	very
06 – bastante	quite
07 – un poco	a little / a bit
08 – a la derecha	on the right
09 – a la izquierda	on the left
10 – Creo que...	I think that...

Vocabulary 7a – Opinions

01 – ¿Qué te gusta hacer?	What do you like to do?
02 – Me gusta...	I like...
03 – Me gusta mucho...	I really like...
04 – No me gusta...	I don't like...
05 – No me gusta nada...	I don't like at all...
06 – navegar por Internet	to surf the Internet
07 – chatear	to chat online
08 – escuchar música	to listen to music
09 – jugar a los videojuegos	to play videogames
10 – mandar SMS	to send text messages

Vocabulary 7b – Reasons

01 – ver la televisión	to watch TV
02 – leer	to read
03 – escribir correos	to write emails
04 – salir con mis amigos	to go out with my friends
05 – ...porque es...	...because it's...
06 – ...porque no es...	...because it's not...
07 – aburrido/a	boring
08 – interesante	interesting
09 – divertido/a	amusing, fun, funny
10 – estúpido/a	stupid

Spanish 3

Vocabulary 8a – Hobbies

01 – ¿Qué haces en tu tiempo libre?	What do you do in your free time?
02 – Bailo	I dance
03 – Bailas	You dance
04 – Canto karaoke	I sing karaoke
05 – Hablo con mis amigos	I talk with my friends
06 – Monto en bici	I ride my bike
07 – Saco fotos	I take photos
08 – Saca fotos	He/She takes photos
09 – Toco la guitarra	I play the guitar
10 – Tocamos la guitarra	We play the guitar

Vocabulary 8b – Frequency

01 – Bailáis	You (plural) dance
02 – Bailan	They dance
03 – Canta karaoke	He/She sings karaoke
04 – Cantamos karaoke	We sing karaoke
05 – Sacamos fotos	We take photos
06 – Toca la guitarra	He/She plays the guitar
07 – A veces	Sometimes
08 – De vez en cuando	From time to time
09 – Nunca	Never
10 – Todos los días	Every day

Vocabulary 9a – Weather

01 – ¿Qué tiempo hace?	What is the weather like?
02 – Hace calor	It is hot
03 – Hace frío	It is cold
04 – Hace sol	It is sunny
05 – Hace buen tiempo	It is good weather
06 – Hace mal tiempo	It is bad weather
07 – Lluve	It is raining
08 – Nieva	It is snowing
09 – Cuando...	When...
10 – ¿Qué haces cuando llueve?	What do you do when it's raining?

Spanish 4

Vocabulary 9b – Seasons

01 – Estaciones	Seasons
02 – En...	In / On / At
03 – Primavera	Spring
04 – Verano	Summer
05 – Otoño	Autumn
06 – Invierno	Winter
07 – generalmente	generally
08 – con	with
09 – mucho	a lot
10 – ¿Y tú?	And you?

Vocabulary 10a – Sports

01 – ¿Qué deporte haces?	What sports do you do?
02 – Hago artes marciales	I do martial arts
03 – Hago atletismo	I do athletics
04 – Hago equitación	I do horseriding
05 – Hago gimnasia	I do gymnastics
06 – Hago natación	I do swimming
07 – Juego al baloncesto	I play basketball
08 – Juego al fútbol	I play football
09 – Juego al tenis	I play tennis
10 – Juego al voleibol	I play volleyball

Vocabulary 10b – Days of the Week

01 – Lunes	Monday
02 – Martes	Tuesday
03 – Miércoles	Wednesday
04 – Jueves	Thursday
05 – Viernes	Friday
06 – Sábado	Saturday
07 – Domingo	Sunday
08 – Los lunes	On Mondays
09 – Los martes	On Tuesdays
10 – Los miércoles	On Wednesdays