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Q no 1 : Simple Calculator

Scratch 3.18.1

Code Costumes Sounds

Events

- when clicked
- when space key pressed
- when this sprite clicked
- when backdrop switches to backdrop1
- when loudness > 10
- when I receive message1
- broadcast message1
- broadcast message1 and wait

Control

- wait 1 seconds
- repeat 10
- forever
- if then
- if then

Code

```
when space key pressed
ask Enter Your First Value So That All Four Basic Operation Can be Formed and wait
set Num 1 to answer
ask Enter Your First Value So That All Four Basic Operation Can be Formed and wait
set Num 2 to answer
set Add to Num 1 + Num 2
say Add for 2 seconds
set Division to Num 1 / Num 2
say Division for 2 seconds
set Subtraction to Num 1 - Num 2
say Subtraction for 2 seconds
set Multiplication to Num 1 * Num 2
say Multiplication for 2 seconds
```

Stage

Sprite Cat

Backdrops 2

Num 1 4

Num 2 6

Add 10

Division 0.666667

Subtraction -2

Multiplication 24

10:27 AM

Q no 2 : Fahrenheit to Celsius

Scratch 3.18.1

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Code Costumes Sounds

Variables

- ☐ Add
- ☒ B
- ☒ C
- ☐ Division
- ☒ Multiplication
- ☐ Num 1
- ☐ Num 2
- ☐ Subtraction
- ☒ Value

My Blocks

- ☐ set Add to 0
- ☐ change Add by 1
- ☐ show variable Add
- ☐ hide variable Add
- ☐ Make a List
- ☐ Make a Block

Script Area

```
when space key pressed
ask Tell the Fahrenheit Value and wait
set Value to answer
set B to Value - 32
set C to 5 / 9
set Multiplication to B * C
say Multiplication for 2 seconds
```

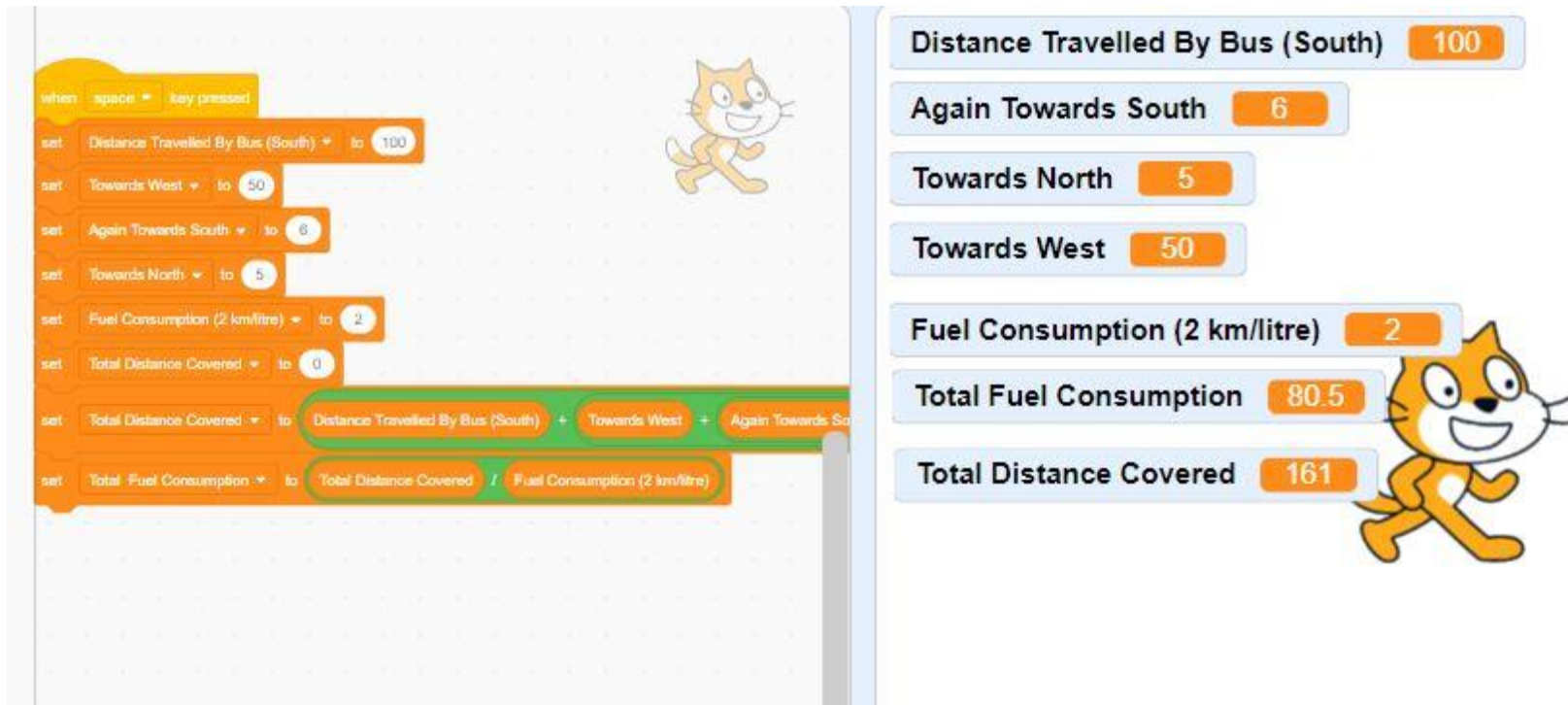
Stage Area

Value 98
B 66
C 0.555556
Multiplication 36.666667

Sprite Cat x 2 y -10
Show Size 100 Direction 90

Backdrops 2

Q no 3 : Consumption and Distance Travelled By Bus



The image displays a Scratch script on the left and a set of variable monitors on the right. The script, triggered by a 'when space key pressed' event, initializes several variables: 'Distance Travelled By Bus (South)' to 100, 'Towards West' to 50, 'Again Towards South' to 6, 'Towards North' to 5, 'Fuel Consumption (2 km/litre)' to 2, and 'Total Distance Covered' to 0. It then calculates the 'Total Distance Covered' by summing 'Distance Travelled By Bus (South)', 'Towards West', and 'Again Towards South'. Finally, it calculates the 'Total Fuel Consumption' by dividing the 'Total Distance Covered' by 'Fuel Consumption (2 km/litre)'. The monitors on the right show the current values of these variables.

Distance Travelled By Bus (South) 100

Again Towards South 6

Towards North 5

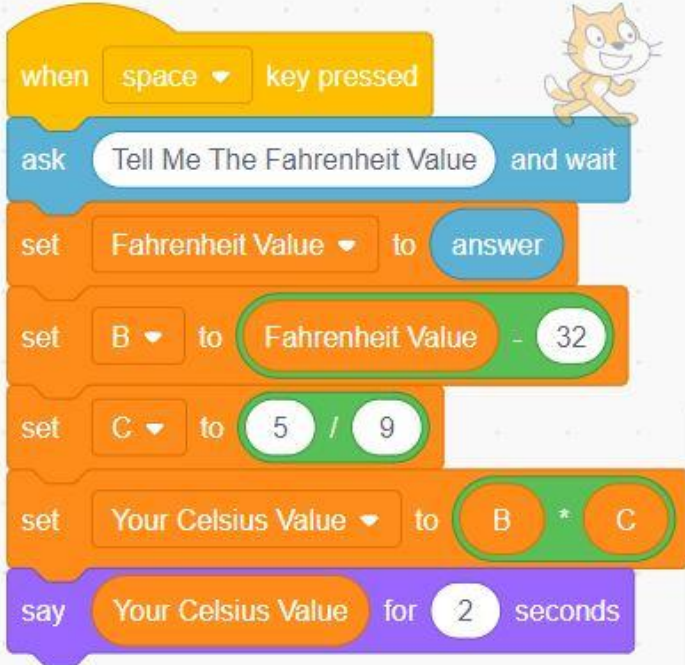
Towards West 50

Fuel Consumption (2 km/litre) 2

Total Fuel Consumption 80.5

Total Distance Covered 161

Q no 4 Conversion of fahrenheit to Celsius



The Scratch script is as follows:


```
when space key pressed
ask Tell Me The Fahrenheit Value and wait
set Fahrenheit Value to answer
set B to Fahrenheit Value - 32
set C to 5 / 9
set Your Celsius Value to B * C
say Your Celsius Value for 2 seconds
```

The script performs the following steps:

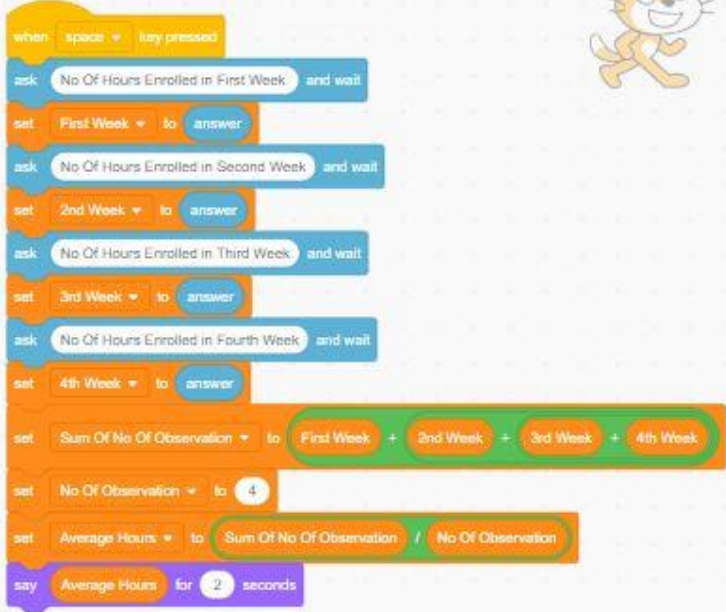
- When the space key is pressed, it asks the user for the Fahrenheit value.
- It sets the variable **Fahrenheit Value** to the user's answer.
- It sets variable **B** to $\text{Fahrenheit Value} - 32$.
- It sets variable **C** to $5 / 9$.
- It sets **Your Celsius Value** to $B * C$.
- It says **Your Celsius Value** for 2 seconds.

The current state of the variables is shown on the right:

Variable	Value
Value	0
Fahrenheit Value	78
Your Celsius Value	25.555556




Q no 5 : Average Hours



The Scratch script on the left performs the following steps:

- When space key is pressed, ask "No Of Hours Enrolled in First Week" and wait.
- Set "First Week" to the answer.
- Ask "No Of Hours Enrolled in Second Week" and wait.
- Set "2nd Week" to the answer.
- Ask "No Of Hours Enrolled in Third Week" and wait.
- Set "3rd Week" to the answer.
- Ask "No Of Hours Enrolled in Fourth Week" and wait.
- Set "4th Week" to the answer.
- Set "Sum Of No Of Observation" to the sum of First Week, 2nd Week, 3rd Week, and 4th Week.
- Set "No Of Observation" to 4.
- Set "Average Hours" to the sum of no of observation divided by no of observation.
- Say "Average Hours" for 2 seconds.



First Week	8
2nd Week	12
3rd Week	12
4th Week	9
Sum Of No Of Observation	41
No Of Observation	4
Average Hours	10.25



Q no 6 : Sell Price of Sweater



```
when green flag clicked
  when space key pressed
  ask Tell the Original Prize Of Sweeter and wait
  set Original Price to answer
  ask How Much Discount Do You Want (in %) and wait
  set Discount to answer
  set Process 1 to Discount / 100
  set Deducted Price From Original Price to Process 1 * Original Price
  set Price With Discount to Original Price - Deducted Price From Original Price
  say Price With Discount for 2 seconds
```

Original Price 5000

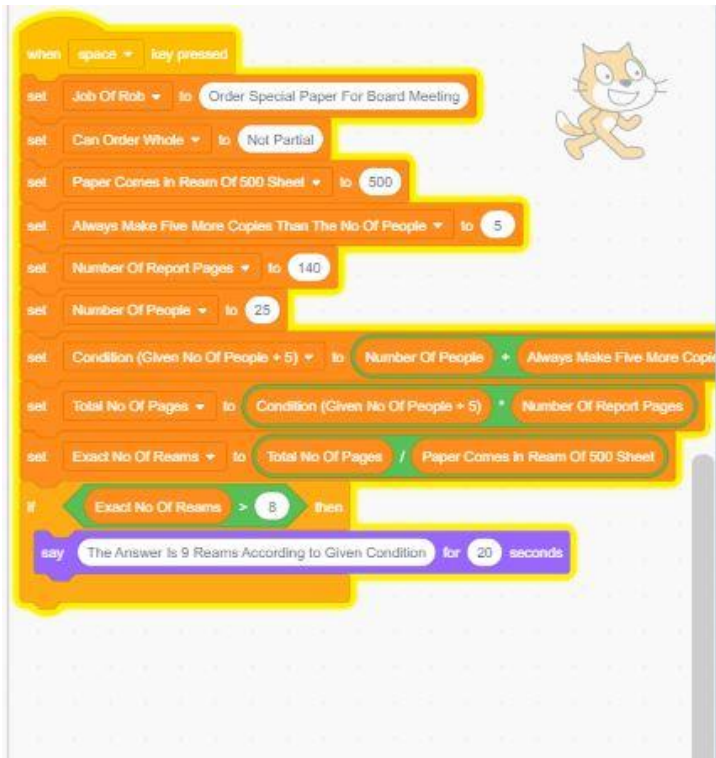
Discount 25

Deducted Price From Original Price 1250

Price With Discount 3750



Q no 7 : Solution of Given Data and No of Reams



Job Of Rob **Order Special Paper For Board Meeting**

Paper Comes in Ream Of 500 Sheet **500**

Number Of People **25**

Number Of Report Pages **140**

Always Make Five More Copies Than The No Of People **5**

Condition (Given No Of People + 5) **30**

Total No Of Pages **4200**

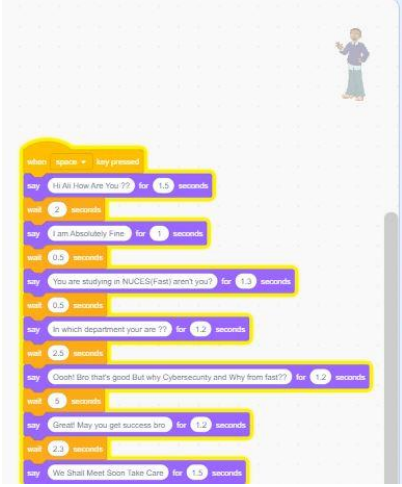
Exact No Of Reams **8.4**

Can Order Whole **Not Partial**

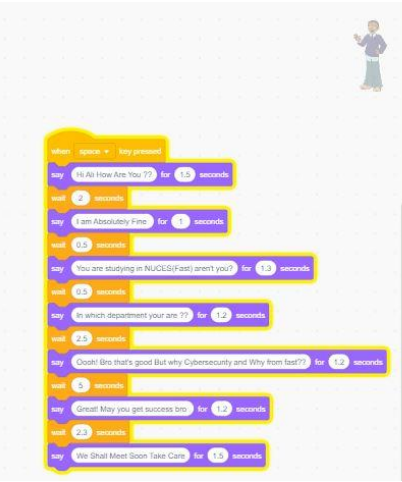
The Answer Is 9 Reams According to Given Condition



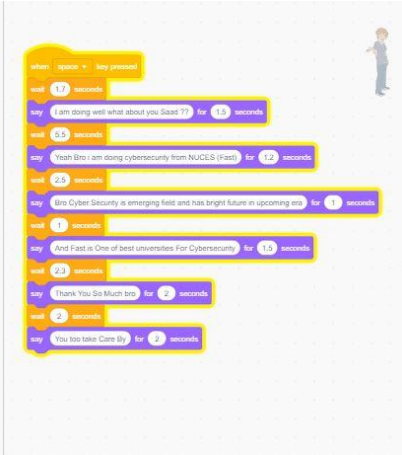
Q no 8 Conversation B/W Saad and Ali




```
when green flag clicked
say Hi Ali How Are You ?? for 1.5 seconds
wait 2 seconds
say I am Absolutely Fine for 1 seconds
wait 0.5 seconds
say You are studying in NUCLSS(Fast) aren't you? for 1.5 seconds
wait 0.5 seconds
say In which department your are ?? for 1.2 seconds
wait 2.5 seconds
say Oooh! Bro that's good But why Cybersecurity and Why from fast?? for 1.2 seconds
wait 5 seconds
say Great! May you get success bro for 1.2 seconds
wait 2.3 seconds
say We Shall Meet Soon Take Care for 1.5 seconds
```




```
when green flag clicked
say Hi Ali How Are You ?? for 1.5 seconds
wait 2 seconds
say I am Absolutely Fine for 1 seconds
wait 1.5 seconds
say You are studying in NUCLSS(Fast) aren't you? for 1.5 seconds
wait 1.5 seconds
say In which department your are ?? for 1.2 seconds
wait 2.5 seconds
say Oooh! Bro that's good But why Cybersecurity and Why from fast?? for 1.2 seconds
wait 5 seconds
say Great! May you get success bro for 1.2 seconds
wait 2.3 seconds
say We Shall Meet Soon Take Care for 1.5 seconds
```




```
when green flag clicked
wait 1.2 seconds
say I am doing well what about you Saad ?? for 1.5 seconds
wait 0.5 seconds
say Yeah Bro I am doing cybersecurity from NUCLSS (Fast) for 1.2 seconds
wait 2.4 seconds
say Bro Cyber Security is emerging field and has bright future in upcoming era for 1 seconds
wait 1 seconds
say And Fast is One of best universities For Cybersecurity for 1.5 seconds
wait 2.3 seconds
say I thank You So Much bro for 2 seconds
wait 2 seconds
say You too take Care By for 2 seconds
```



In which department your are ??



Oooh! Bro that's good But why Cybersecurity and Why from fast??



Bro Cyber Security is emerging field and has bright future in upcoming era