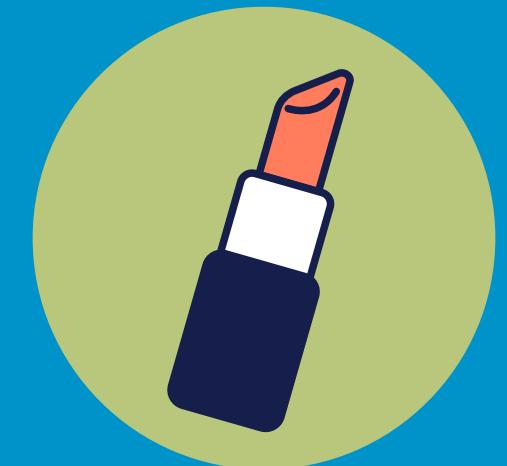
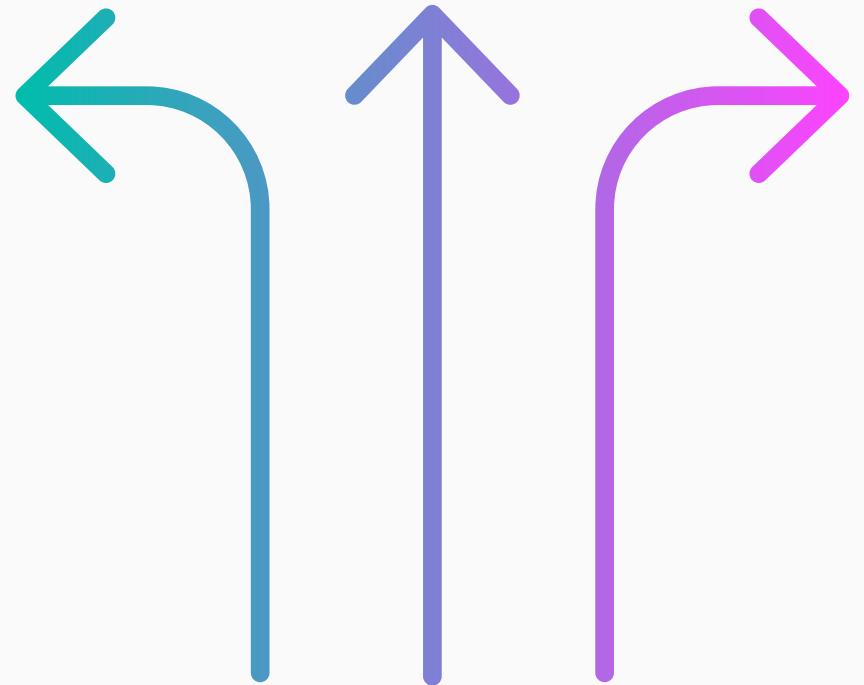


Selection Statements





Selection statements enable you to branch to different sections of code, depending on one or more specified conditions.

Keywords: **if, else, switch, and case.**

Bank ATM



- Deposit
- Withdraw
- View Balance

Bank ATM can do all these things, but you **SELECT** which thing it does



Selection Statements

AKA Control Flow Statements.



A photograph of a highway at night during heavy traffic. The scene is filled with the headlights and tail lights of numerous cars moving in both directions. The lanes are clearly marked by white dashed lines on the asphalt. In the background, there are bridge structures and some streetlights. The overall atmosphere is one of a busy, controlled flow of vehicles.

Control Flow

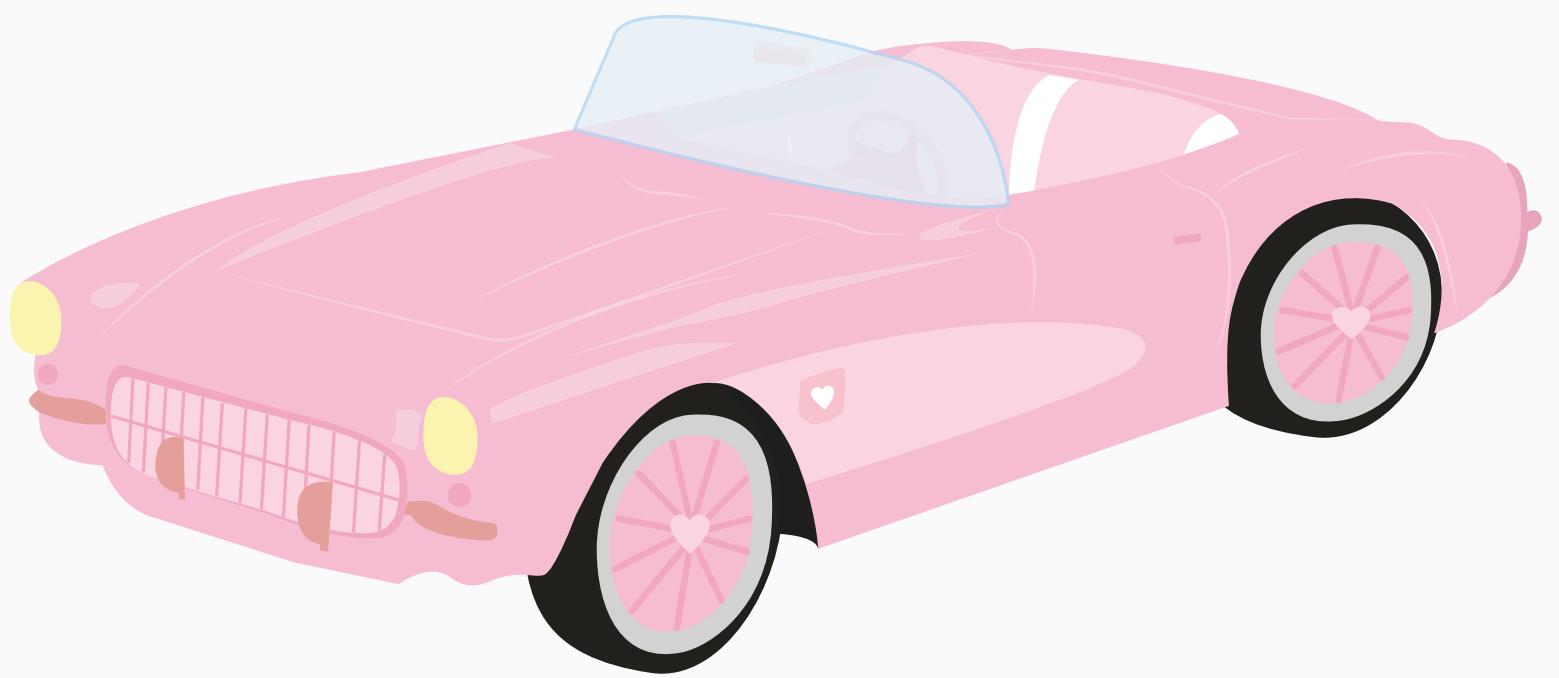
by using...

CONDITIONS

“a state of affairs that must exist or be brought about before something else is possible or permitted”

CONDITION

Something will happen IF



CONDITION

Something will happen IF



CONDITION

Something will happen IF





IF STATEMENTS

Will run block of code based on if the condition equates to true



```
if (condition)
{
    // Code to execute if condition is true
}
```

```
if (true)
{
    // Code will execute
}
```

```
if (false)
{
    // Code will NOT execute
}
```

```
if (false)
{
    // Code will NOT execute
}
else
{
    // This code will execute
}
```

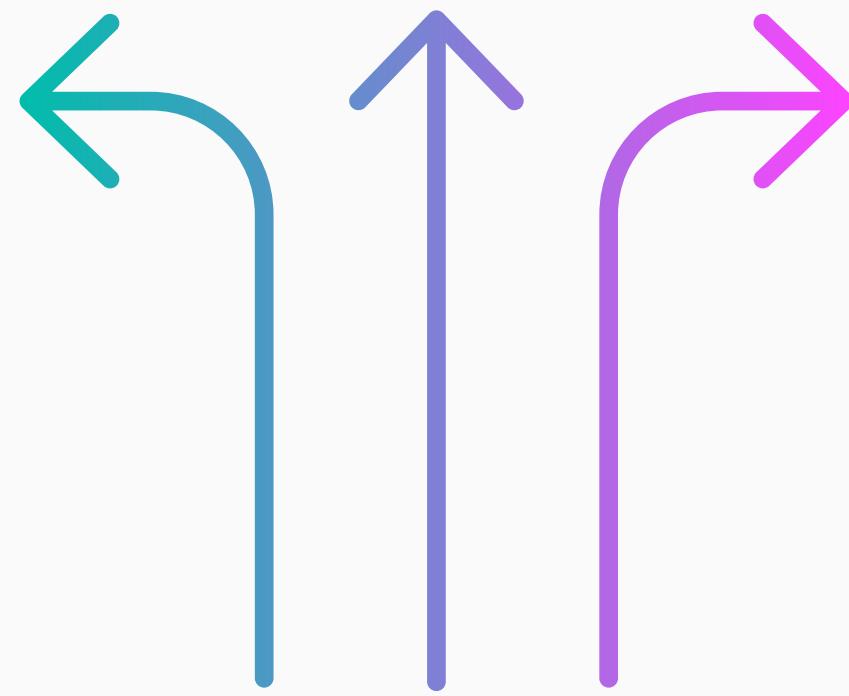
*else does not have a condition

IF-ELSE STATEMENT

The if-else statement allows you to specify a block of code to be executed if the condition is true, and another block of code to be executed if the condition is false.

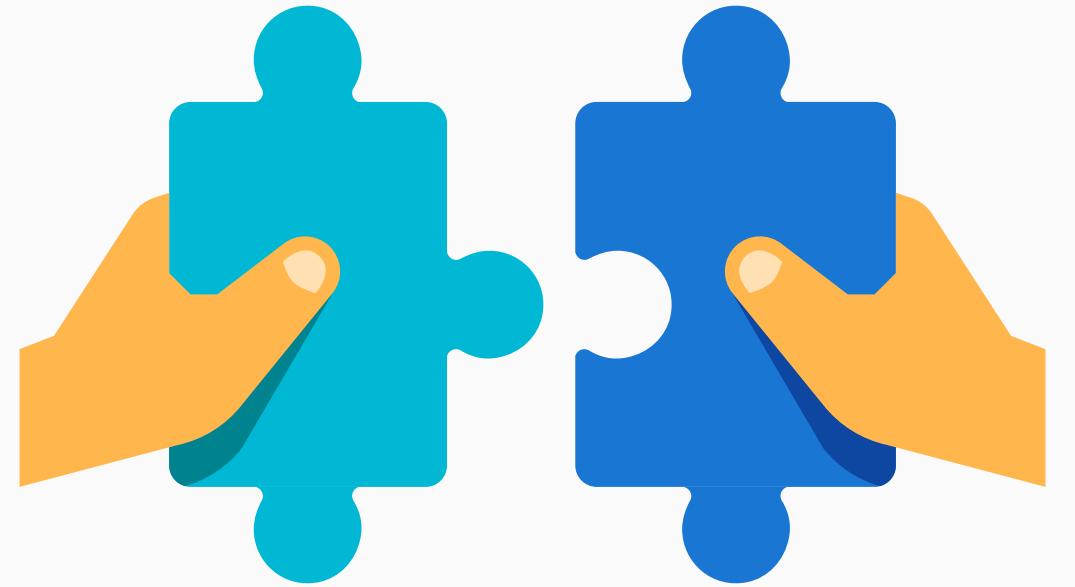


ELSE - IF



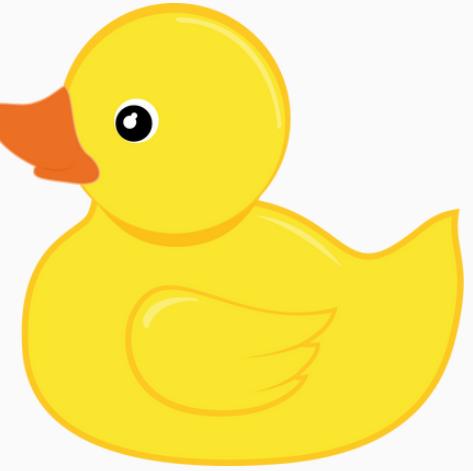
An if statement can be extended by any number of else-if clauses to test more conditions.

```
if (condition1)
{
    // Code to execute if condition1 is true
}
else if (condition2)
{
    // Code to execute if condition1 is false and condition2 is true
}
else
{
    // Code to execute if both condition1 and condition2 are false
}
```

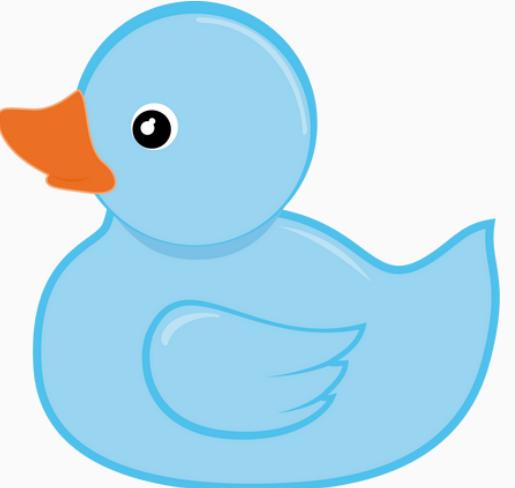
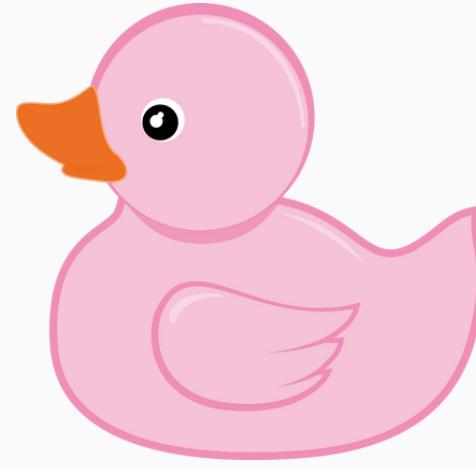
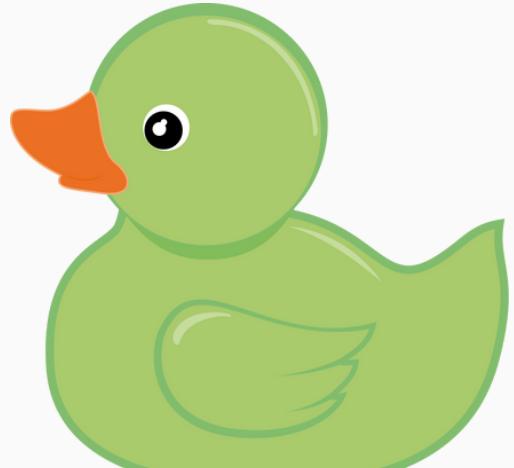
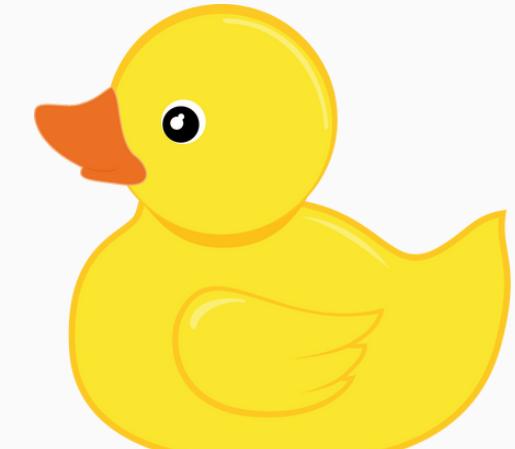
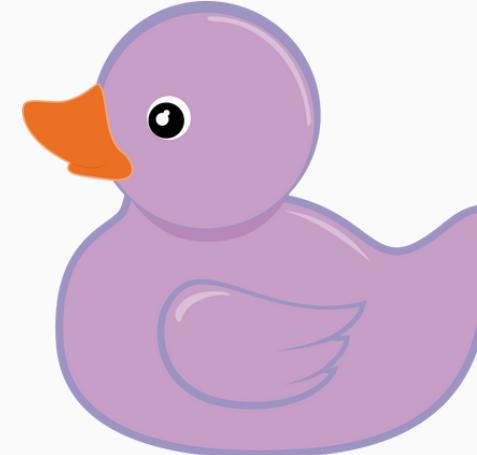
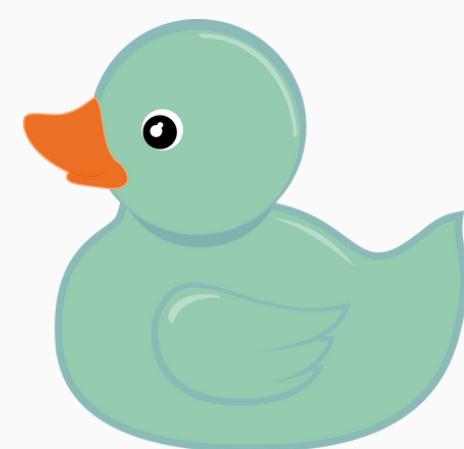


SWITCH CASE

Different from the if statement because it evaluates a single expression against a list of possible cases. Alternative to the if-else if-else.



SWITCH CASE



When to use a switch case?

When you have two or more else - if statements.

Readability and Optimization



Option 1

A



Option 2

A-



Option 3

B



Option 4

B-



Option 5

C



Option 6

C-

```
switch (expression)
{
    case value1:
        // Code to execute if expression equals value1
        break;
    case value2:
        // Code to execute if expression equals value2
        break;
    // You can have any number of case statements.
    default:
        // Code to execute if expression doesn't match any case
        break;
}
```

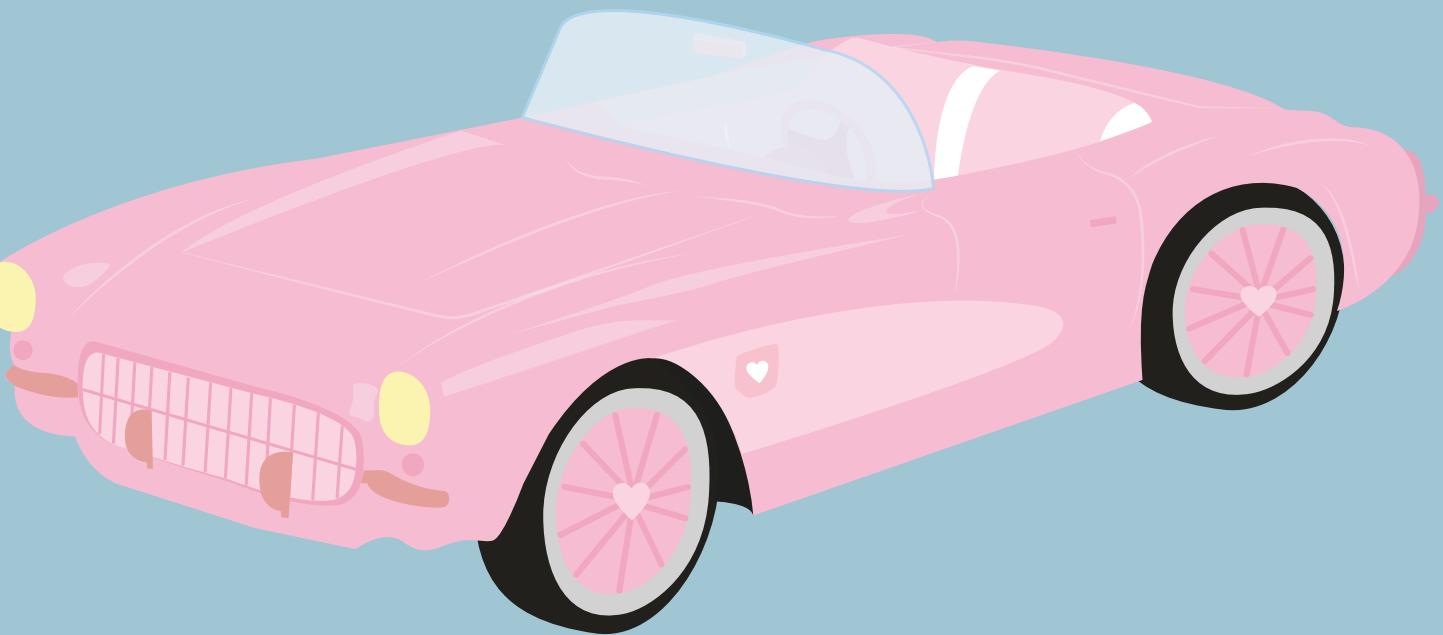
```
int number = 90;

switch (number)
{
    case 90:
        Console.WriteLine("A");
        break;
    case 80:
        Console.WriteLine("B");
        break;
    case 70:
        Console.WriteLine("C");
        break;
    default:
        Console.WriteLine("Not passing grade");
        break;
}
```

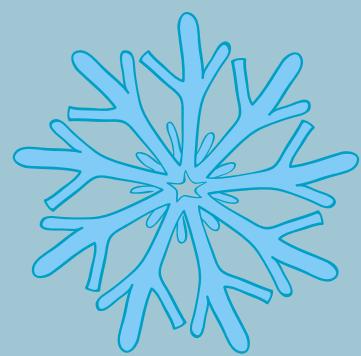
if

Will execute block of code if something is true.

Could have multiple if statements and each one of them could be true.

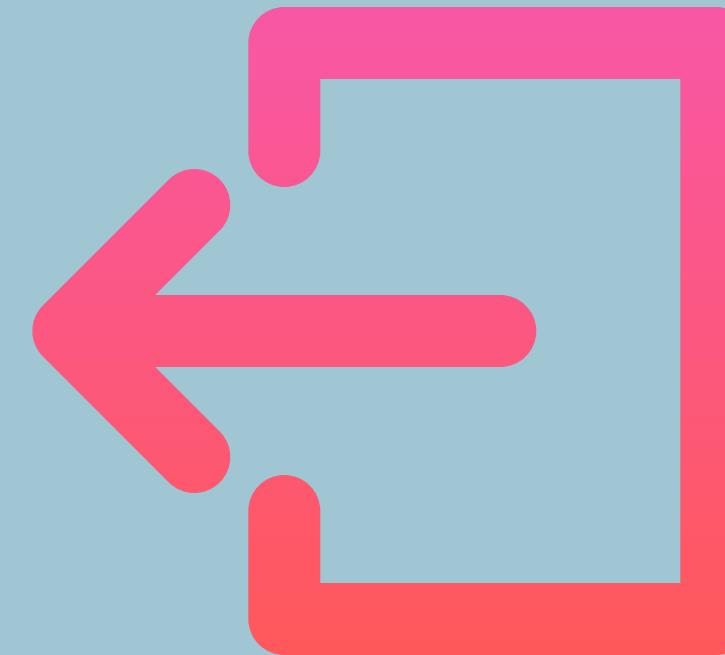


else-if



**Finds an expression that is true and then
breaks out of the sequence**

Finds a true statement and then peaces out.



else

Default statement

Executes when if-statements don't come out as true.





Not all if statements need an else

*Else statements are
optional*

Bonus Info



Pattern Matching



```
int number = 15;

switch (number)
{
    case int n when (n >= 0 && n <= 10):
        Console.WriteLine("Between 0 and 10");
        break;
    case int n when (n > 10 && n <= 20):
        Console.WriteLine("Between 11 and 20");
        break;
    case int n when (n > 20 && n <= 30):
        Console.WriteLine("Between 21 and 30");
        break;
    default:
        Console.WriteLine("Outside the range of 0 to 30");
        break;
}
```

Use this for a
photo caption.



Write your topic or idea

Briefly elaborate on what you want to discuss.

Write your topic or idea



Briefly elaborate on what you want to discuss.

Write your topic or idea

01

**Add a
main point**

Briefly elaborate
on what you
want to discuss.

02

**Add a
main point**

Briefly elaborate
on what you
want to discuss.

03

**Add a
main point**

Briefly elaborate
on what you
want to discuss.

04

**Add a
main point**

Briefly elaborate
on what you
want to discuss.

01

Add a main point

Briefly elaborate on what you want to discuss.

02

Add a main point

Briefly elaborate on what you want to discuss.

**Write
your topic
or idea**

Write your topic or idea



Add a main point

Briefly elaborate on what you want to discuss.



Add a main point

Briefly elaborate on what you want to discuss.

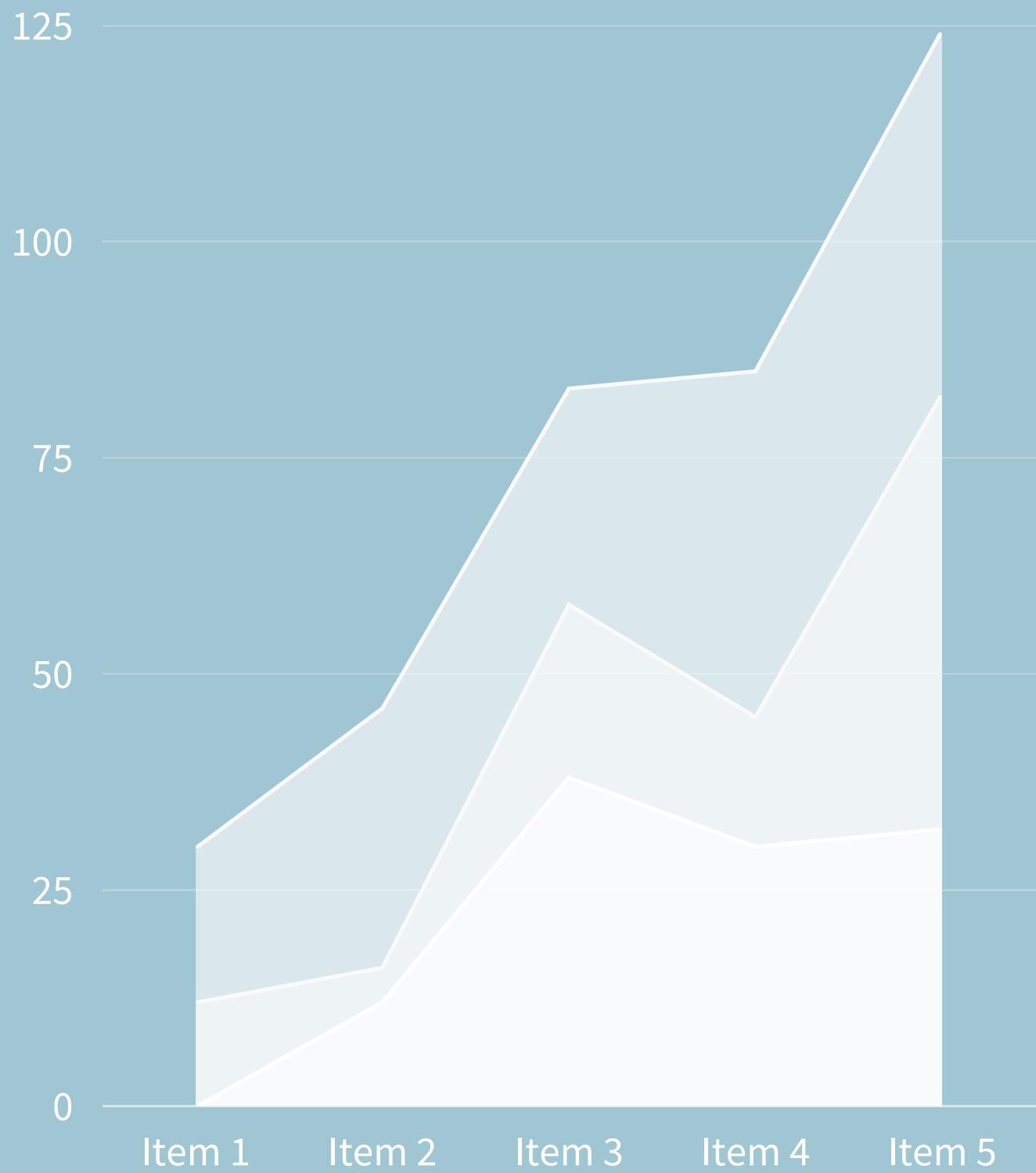


Add a main point

Briefly elaborate on what you want to discuss.

Write your topic or idea

Briefly elaborate on
what you want to discuss.





Add a section header

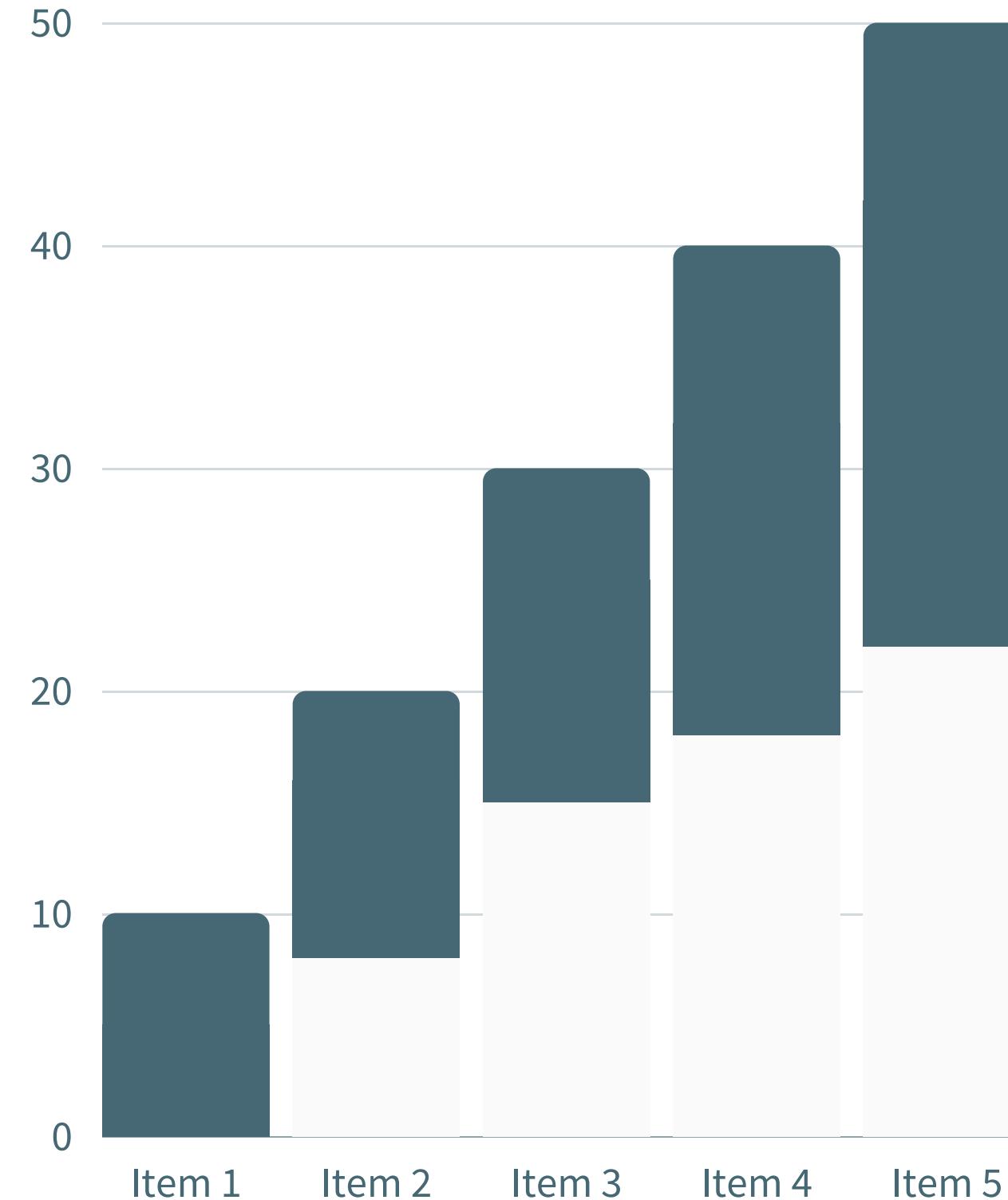
Use this for a
photo caption.



Write your topic or idea

Use this for a photo caption.





**Write your
topic or idea**

Briefly elaborate on
what you want to discuss.



Use this for a photo caption.

**Write
your topic
or idea**



2 out of 6

Briefly elaborate on
what you want to discuss.



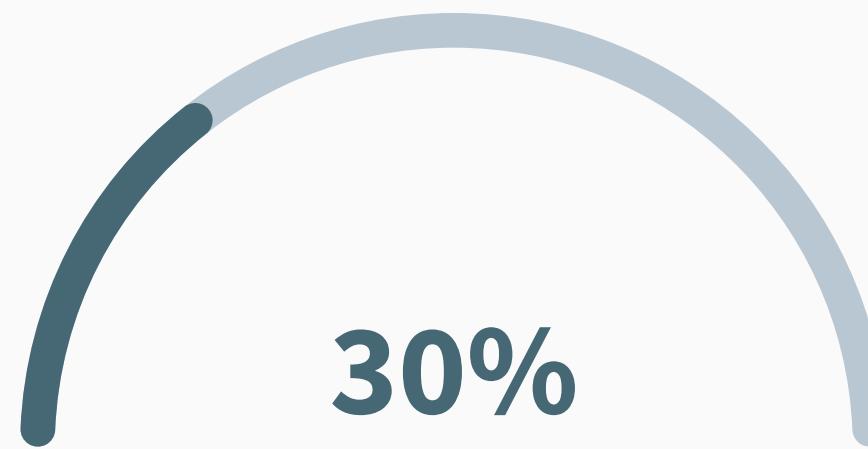
5 out of 6

Briefly elaborate on
what you want to discuss.

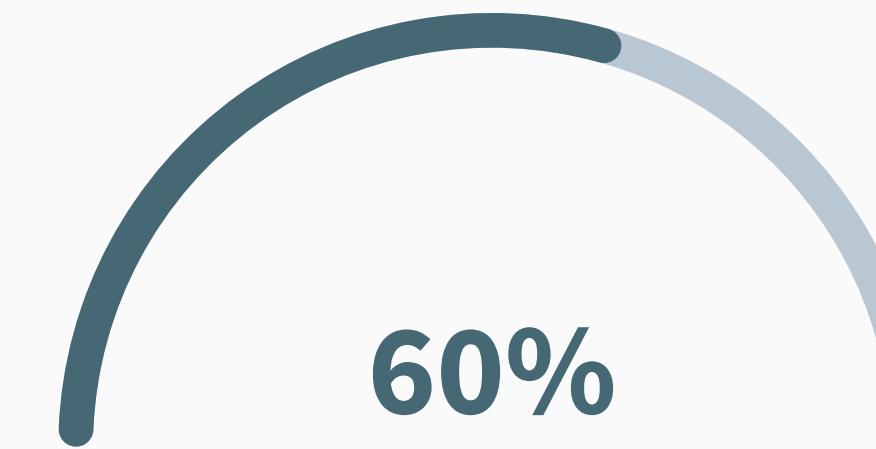
**Write your topic
or idea**

Write your topic or idea

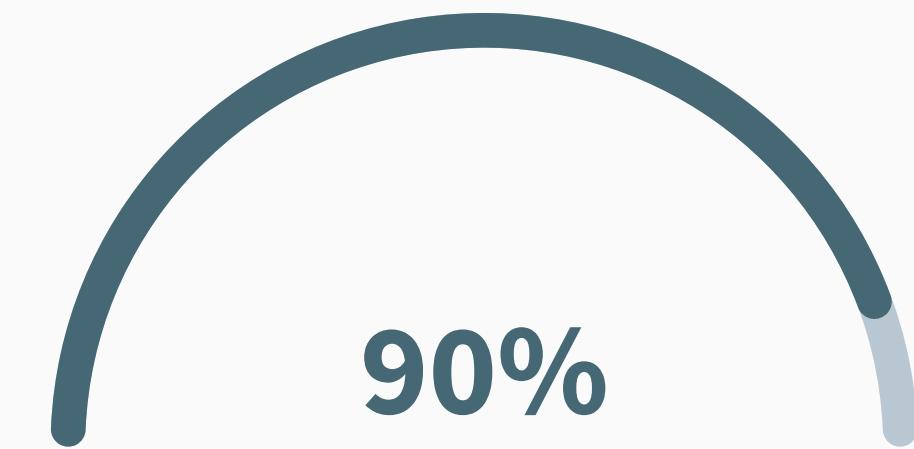
Briefly elaborate on what you want to discuss.



**Add a
main point**



**Add a
main point**



**Add a
main point**

Write your topic or idea

Briefly elaborate on
what you want to discuss.



Write your topic or idea

**Add a main
point**

Briefly elaborate
on what you
want to discuss.

**Add a main
point**

Briefly elaborate
on what you
want to discuss.

**Add a main
point**

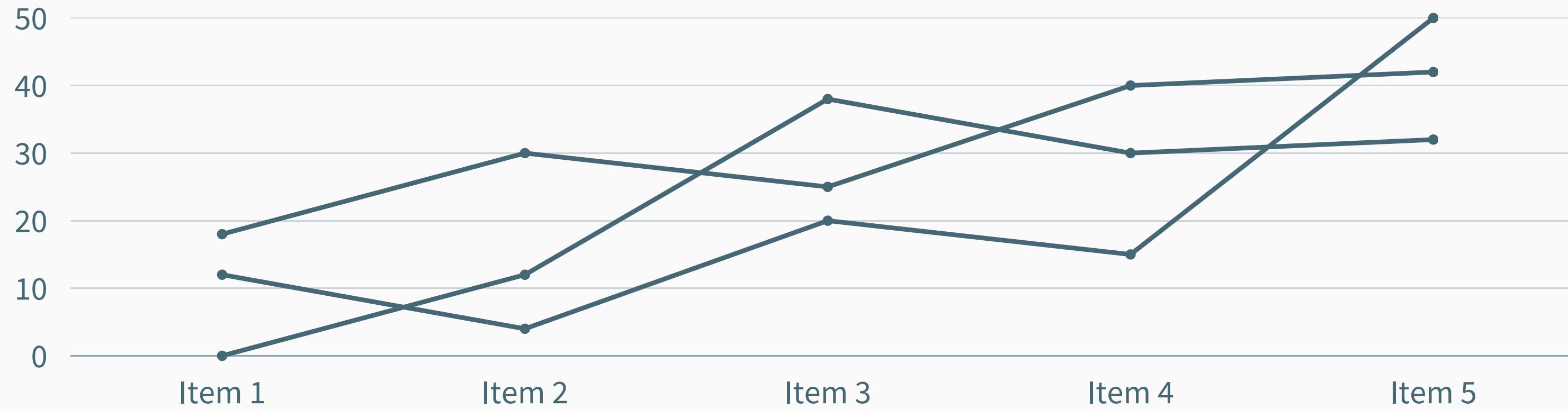
Briefly elaborate
on what you
want to discuss.

**Add a main
point**

Briefly elaborate
on what you
want to discuss.

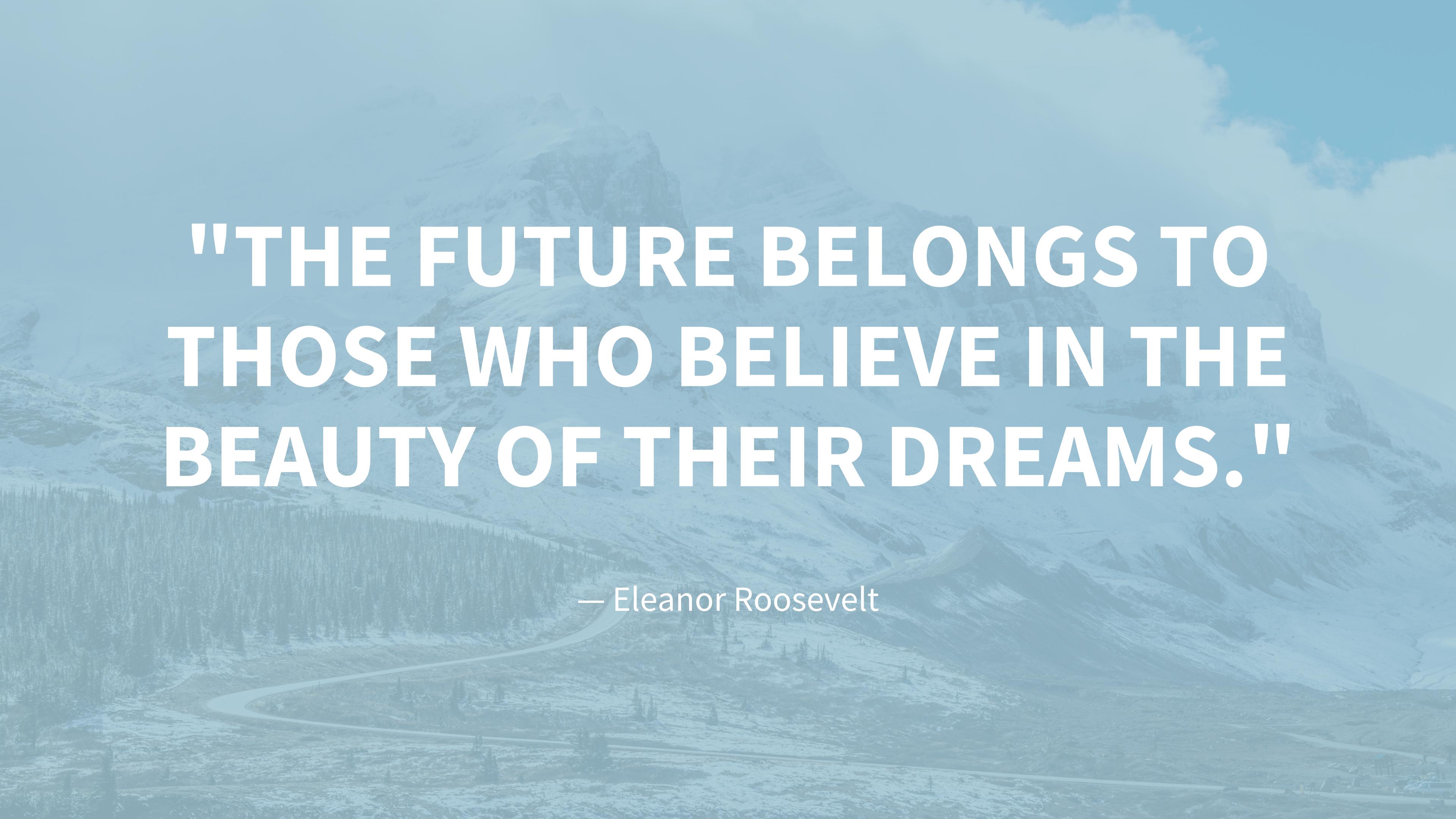
Write your topic or idea

Briefly elaborate on what you want to discuss.





Add a
section
header

A scenic mountain landscape with a winding road and a forest in the foreground.

**"THE FUTURE BELONGS TO
THOSE WHO BELIEVE IN THE
BEAUTY OF THEIR DREAMS."**

— Eleanor Roosevelt

Free Resource

Use these elements
in your Canva presentation.

