# 6CONNEX

Sustainability Report

Executive Summary

Background

In the spring of 2021, 6Connex, a Virtual Event Platform, contracted WSP, a world leading engineering and professional services consulting firm, to assess the greenhouse gas (GHG) impact of hosting virtual events on the 6Connex platform, in lieu of hosting on-site events. This engagement is a part of 6Connex' corporate goal to communicate the sustainability benefits of its platform and virtual events.

For this study, WSP analyzed 7 unique events that were hosted on the 6Connex platform in 2020. WSP and 6Connex defined the boundaries of typical activities that occur during both on-site and virtual events. On-site event boundaries consider the emission impacts from travel, hotel, meals, waste, event space, and marketing materials. Virtual event boundaries consider the emission impacts from food, waste, marketing materials, virtual workstations, and the 6Connex servers. Primary data was compiled for this assessment. WSP conducted estimations which were validated by 6Connex to conduct this study when primary data was not available.

Results

► The results of this assessment show that for each study, conducting an event using the 6Connex Virtual Event Platform is significantly less carbon intensive than conducting one in person.

   ► Travel to and from events was found to be the primary driver of carbon emission impact for most events. This impact increased when more attendees flew to an event.

   ► Events which had a higher amount of local attendees resulted in lower emissions from travel.

   ► The duration of the event had an overall impact on the emissions.

► The carbon impacts of these events should be viewed as emissions avoided rather than saved given virtual events do not reduce emissions.

► The following documents outlines the results of each analyzed event. Analysis compares the carbon emissions of on-site events versus events virtually hosted on the 6Connex platform. Equivalent carbon emissions avoided are also estimated for each analyzed event.

► The methodology and assumptions that were used to conduct this study are included below.
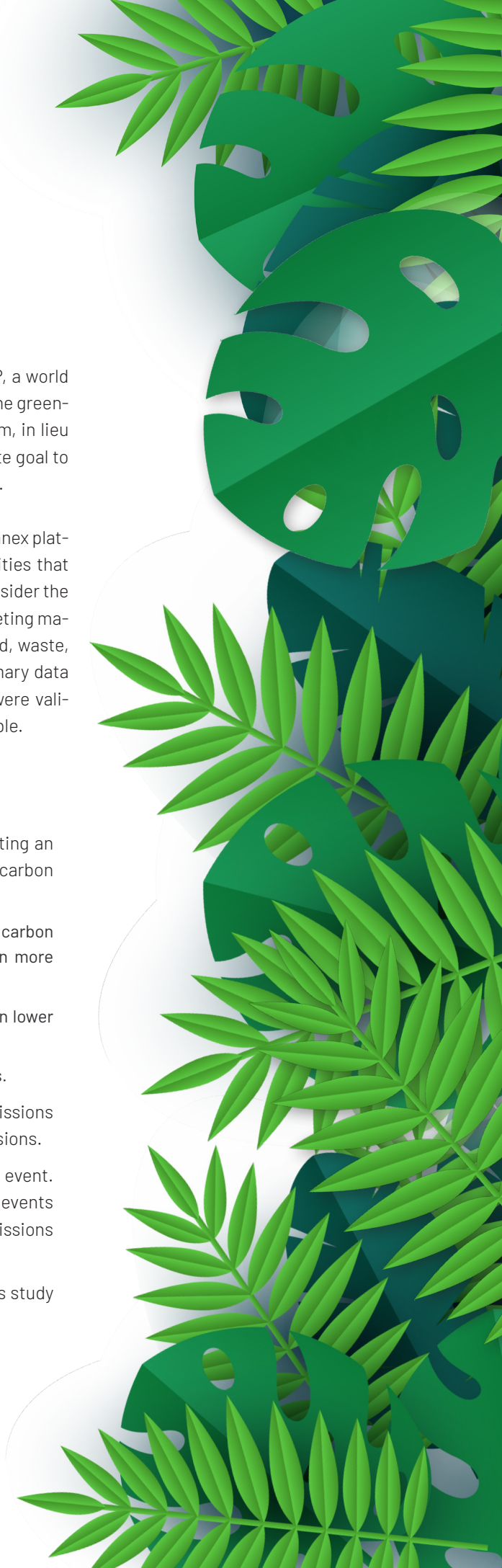
Medical Organization

This nonprofit organization is a leader in the academic medicine community based in Washington, D.C., USA. Their one-day event brought 9,926 attendees together who typically would have to fly in from all over the world. By hosting their event virtually, carbon emissions related to transportation and event space were entirely avoided.

Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	–
Emissions from Lodging & Event Space	–
Emissions from Meals & Snacks	63
Waste Emissions from Virtual Event	4
Emissions from Company Marketing Materials	23
Emissions from Virtual Workstation	5
Emissions from 6Connex Servers	0.01

Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	2,526
Emissions from Lodging & Event Space	345
Emissions from Meals & Snacks	530
Waste Emissions from Live Event	12
Emissions from Company Marketing Materials	88
Emissions from Virtual Workstation	–
Emissions from 6Connex Servers	–

95
TOTAL EMISSIONS FROM THE VIRTUAL EVENT

3,501
TOTAL EMISSIONS FROM THE PHYSICAL EVENT

3,406
TOTAL EMISSIONS SAVED

Key Takeaways:

This virtual event emits ~36X less emissions than an in-person event

▶ The largest impact of in-person events is associated with Travel accounting for ~72% of total emissions

▶ Server usage has an insignificant impact to the overall footprint

▶ Meals are the largest impact for virtual events ~66% and the second largest to in-person events ~15%

Transforming this event from in-person to **virtual** is equivalent to **4,173 acres of U.S. Forests**

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HR Organization

Headquartered in Lindon, Utah, USA, the world's largest virtual HR conference in 2017 connected 18,380+ attendees from around the country for 60 highly-engaging and interactive sessions during their one-day virtual event. Learn more about their impact on offsetting Co2 below.
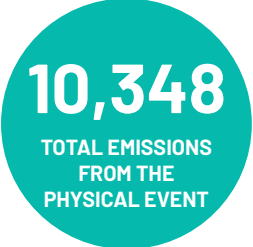
176 TOTAL EMISSIONS FROM THE VIRTUAL EVENT

10,348 TOTAL EMISSIONS FROM THE PHYSICAL EVENT

10,172 TOTAL EMISSIONS SAVED

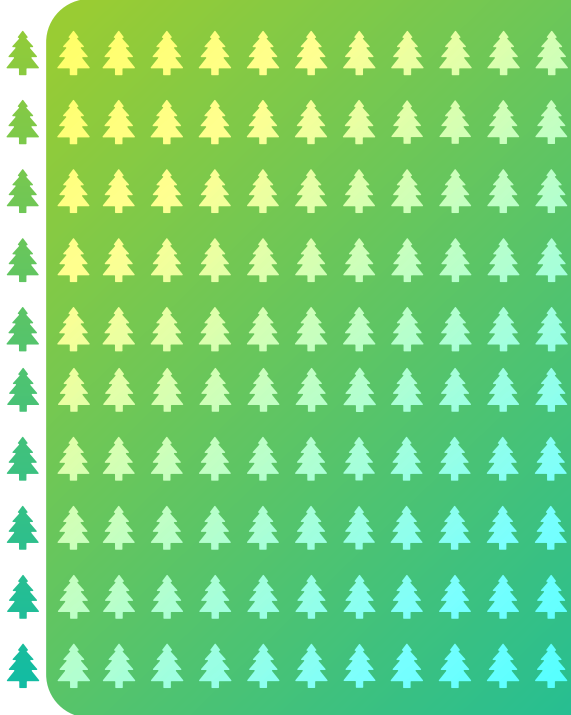| Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	–
Emissions from Lodging & Event Space	–
Emissions from Meals & Snacks	116
Waste Emissions from Virtual Event	7
Emissions from Company Marketing Materials	43
Emissions from Virtual Workstation	10
Emissions from 6Connex Servers	0.02

Key Takeaways:

This virtual event emits ~59X less emissions than an in-person event due to a large amount of attendees

▶ The largest impact of in-person event is associated with Transportation accounting for ~88% of total emissions which can be attributed to the distance travelled to the event

▶ Meals are the largest impact for virtual events ~66%

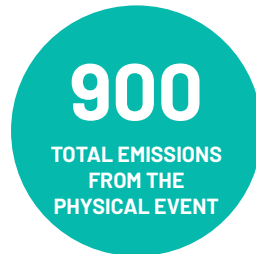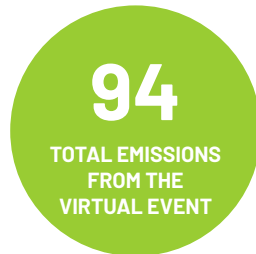| Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	9,095
Emissions from Lodging & Event Space	576
Emissions from Meals & Snacks	490
Waste Emissions from Live Event	23
Emissions from Company Marketing Materials	163
Emissions from Virtual Workstation	0
Emissions from 6Connex Servers	–

Transforming this event from in-person to **virtual** is equivalent to **12,463 acres of U.S. Forests**

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Insurance Organization

The world's largest publicly traded P&C insurance company, headquartered in Warren, NJ, USA hosted their virtual event with 6Connex, attracting 3,001 attendees across four days. Due to converting their four-day event from in-person to virtual, they saved tremendously on lodging, travel, event space, and meals, all of which contribute to a large amount of total emissions.

Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	–
Emissions from Lodging & Event Space	–
Emissions from Meals & Snacks	76
Waste Emissions from Virtual Event	5
Emissions from Company Marketing Materials	7
Emissions from Virtual Workstation	6
Emissions from 6Connex Servers	0.02

Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	273
Emissions from Lodging & Event Space	266
Emissions from Meals & Snacks	320
Waste Emissions from Live Event	15
Emissions from Company Marketing Materials	27
Emissions from Virtual Workstation	0
Emissions from 6Connex Servers	–

94 TOTAL EMISSIONS FROM THE VIRTUAL EVENT

900 TOTAL EMISSIONS FROM THE PHYSICAL EVENT

806 TOTAL EMISSIONS SAVED

Key Takeaways:

This virtual event emits ~9.5X less emissions than an in-person event

▶ Meals are the largest impact for virtual events ~80% and the largest to in-person events ~36%

▶ ~90% of attendees were local which minimized the carbon impacts from transportation

Transforming this event from in-person to **virtual** is equivalent to **987 acres of U.S. Forests**

Conferences for Women

This female-led leadership company is headquartered in Philadelphia, PA, USA. Their one-day event attracted 8,796 attendees. Because of the carbon emissions avoided and costs saved, Conferences for Women has chosen to continue offering virtual components moving forward.

Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	-
Emissions from Lodging & Event Space	-
Emissions from Meals & Snacks	56
Waste Emissions from Virtual Event	4
Emissions from Company Marketing Materials	20
Emissions from Virtual Workstation	5
Emissions from 6Connex Servers	0.01

Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	1,767
Emissions from Lodging & Event Space	240
Emissions from Meals & Snacks	235
Waste Emissions from Live Event	11
Emissions from Company Marketing Materials	78
Emissions from Virtual Workstation	0
Emissions from 6Connex Servers	-

84
TOTAL EMISSIONS FROM THE VIRTUAL EVENT

2,331
TOTAL EMISSIONS FROM THE PHYSICAL EVENT

2,247
TOTAL EMISSIONS SAVED

Key Takeaways:

This virutal event emits ~28X less emissions than an in-person event

▶ The largest impact of in-person event is associated with Transportation accounting for ~76% of total emissions

▶ Meals are the largest impact for virtual events ~66%

Transforming this event from in-person to **virtual** is equivalent to **2,753 acres of U.S. Forests**

Convert Group

Headquartered in Athens, Greece, Convert Group enables FMCG & Consumer Healthcare Companies and Retailers to access meaningful and actionable commercial, marketing, and eCommerce data. A total of 563 guests attended their event virtually across three days.

Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	-
Emissions from Lodging & Event Space	-
Emissions from Meals & Snacks	11
Waste Emissions from Virtual Event	1
Emissions from Company Marketing Materials	1
Emissions from Virtual Workstation	1
Emissions from 6Connex Servers	0.01

Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	152
Emissions from Lodging & Event Space	70
Emissions from Meals & Snacks	45
Waste Emissions from Live Event	2
Emissions from Company Marketing Materials	5
Emissions from Virtual Workstation	0
Emissions from 6Connex Servers	-

14 TOTAL EMISSIONS FROM THE VIRTUAL EVENT

274 TOTAL EMISSIONS FROM THE PHYSICAL EVENT

260 TOTAL EMISSIONS SAVED

Key Takeaways:

Despite having less than 600 attendees, this virtual event emitted ~19X less emissions than an in-person event

▶ The largest impact of in-person event is associated with Transportation accounting for ~55% of total emissions

▶ Meals are the largest impact for virtual events ~78%

Transforming this event from in-person to **virtual** is equivalent to **319 acres of U.S. Forests**

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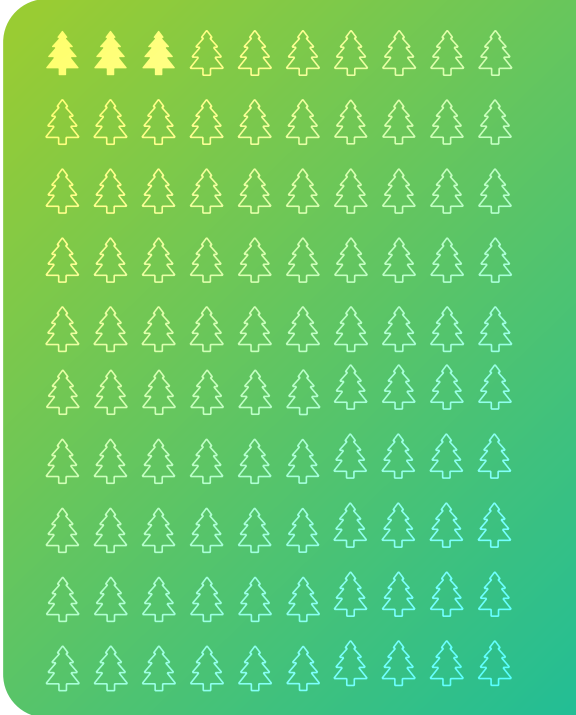
Marketing Organization

This growth marketing platform headquartered in San Francisco, CA, USA held their two-day event virtually in 2020, attracting 2,141 attendees nationwide. By hosting their event virtually, their leadership was able to avoid enormous amounts of carbon from transportation.

Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	–
Emissions from Lodging & Event Space	–
Emissions from Meals & Snacks	27
Waste Emissions from Virtual Event	2
Emissions from Company Marketing Materials	5
Emissions from Virtual Workstation	2
Emissions from 6Connex Servers	0.01

Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	1,486
Emissions from Lodging & Event Space	89
Emissions from Meals & Snacks	114
Waste Emissions from Live Event	5
Emissions from Company Marketing Materials	19
Emissions from Virtual Workstation	–
Emissions from 6Connex Servers	–

36 TOTAL EMISSIONS FROM THE VIRTUAL EVENT

1,713 TOTAL EMISSIONS FROM THE PHYSICAL EVENT

1,677 TOTAL EMISSIONS SAVED

Key Takeaways:

This virtual event emits ~48X less emissions than an in-person event

▶ The largest impact of in-person events is associated with Travel accounting for ~86% of total emissions

▶ Sever usage has an insignificant impact to the overall footprint

Transforming this event from in-person to **virtual** is equivalent to **2,055 acres of U.S. Forests**

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CRM Organization

This company is a global leader in Customer Relationship Management headquartered in San Francisco, CA, USA. Their Virtual Benefits Fair was held on the 6Connex platform, attracting 5,662 people across a two-day event. Not only were they able to improve employee participation, but they're also positively impacting the world by offsetting their carbon footprint.

Emissions Sources (Virtual)	mtCO2e
Emissions from Transportation	–
Emissions from Lodging & Event Space	–
Emissions from Meals & Snacks	72
Waste Emissions from Virtual Event	5
Emissions from Company Marketing Materials	13
Emissions from Virtual Workstation	6
Emissions from 6Connex Servers	0.013

Emissions Sources (Physical)	mtCO2e
Emissions from Transportation	7,298
Emissions from Lodging & Event Space	234
Emissions from Meals & Snacks	302
Waste Emissions from Live Event	14
Emissions from Company Marketing Materials	50
Emissions from Virtual Workstation	–
Emissions from 6Connex Servers	–

95 TOTAL EMISSIONS FROM THE VIRTUAL EVENT

7,898 TOTAL EMISSIONS FROM THE PHYSICAL EVENT

7,802 TOTAL EMISSIONS SAVED

Key Takeaways:

This virtual event emits ~83X more emissions than an in-person event

▶ The largest impact of in-person events is associated with Travel accounting for ~92% of total emissions

▶ Server usage has an insignificant impact to the overall footprint

▶ The carbon impacts from travel were significant as a result of ~ 65% of attendees flying long distances (greater than 2,300 miles)

Transforming this event from in-person to **virtual** is equivalent to **9,559 acres of U.S. Forests**

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Event Details

Methodology

The following details the methodology used to calculate the emissions associated with an in-person and virtual event using the 6Connex web-based platform. The in-person events represents the likely event that would have been held in-person if not for 6Connex. Seven completed events were selected for analysis.

▶ Event Boundaries were determined at the beginning of this assessment to ensure a consistent and methodological approach in calculating both in-person and virtual events. An on-site event considered the emission impacts from travel, hotel, meals, waste, event space, and marketing materials. A virtual event considered the emission impacts from food, waste, marketing materials, virtual workstations, and the 6Connex servers.

▶ WSP requested event data from 6Connex for each selected virtual event. A data request was sent to 6Connex to provide details about each event. 6Connex provided all data for each event including, the IP addresses of each attendee, the physical location, number of attendees, days, marketing material, waste, food, and the server type used by 6Connex.

▶ Information was compiled and reviewed by WSP to ensure data completeness. Where data was not available, WSP made assumptions and estimations that were validated by 6Connex. A list of assumptions can be found in the Assumptions section of this document.

▶ A data calculation workbook was created to generate the carbon impacts for both in-person and virtual for each of the 7 events. This workbook calculated the results by multiplying the activity data by the corresponding emission factor. While there is not a specific method for calculating an event, this study follows leading GHG practices to calculate the GHG emissions associated with these events. A list of sources can be found within the Sources section of this document.

Assumptions

▶ **Events Attendees:** All 6Connex virtual events were assumed to have the same amount of attendees as in-person events.

▶ **Attendee Location:** IP addresses were provided by 6Connex for each event. IP addresses were used to identify the country of origin of each attendee.

▶ **Event Location:** Location of each physical event was provided by 6Connex.

▶ **Transportation:** Air travel to and from event was calculated by assuming major airport at country based on attendee IP addresses as well as the closest major airport to the event. An online calculator was used to determine the distance between airports. For local travel an estimation of travel type (Road, Rail, and Bus) and distance traveled was used to calculate the carbon emissions.

▶ **Hotel and Meeting Space:** Per 6Connex, 100% of hotel stays was classified as upscale. Meeting space assumed 50 sq. ft per attendee. All attendees assumed to have stayed at the hotel.

▶ **Marketing Materials/Handouts:** Assumes $30 per in-person attendee. $10 per virtual attended which includes shipping.

▶ **Food:** In-person attendees assumed $100 spend on meals per day. Virtual attendees assumed $10 spend per day.

▶ **Waste:** In-person attendees assumed 4.2 lbs. of waste per day. Virtual attendees assumed 1.63 lbs. per day. Assumptions were made for end of life scenarios, i.e. recycled vs. sent to landfill (US EPA)

▶ **6Connex Servers:** Server types were provided by 6Connex. All 6Connex servers leverage Amazon Web Services (AWS). Servers were estimated to use 1.7 MWH/year. Emissions were calculated using location of server and energy usage. (US EPA eGrid)

▶ **Virtual Event Space:** The emissions from home energy consumption per user assumed 0.54 kg of CO2e per user per day

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Event Name	Event Location	Days of Event	Attendees
Medical Organization	Washington D.C., USA	1	9,926
HR Organization	Lindon, Utah, USA	1	18,380
Insurance Organization	Warren, NJ, USA	4	3,001
Conferences for Women	Philadelphia, PA, USA	1	8,796
Convert Group	Athens, Greece	3	563
Marketing Organization	San Francisco, CA USA	2	2,141
CRM Organization	San Francisco, CA, USA	2	5,662

Impact area	Source
Travel (United States): Flight, Car, Rail, Bus	US EPA GHG Emission Factor Hub
Travel (International - Air)	2019 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting.
Lodging and Event Space	US EPA eGRID International Energy Agency, as cited by EIA for 1605b.
Food & Event Materials & Services	UK Department for Environment, Food, & Rural Affairs (DEFRA), Table 13 - Indirect emissions from the supply chain
6Connex Servers	HPE server specifications US EPA eGRID UK: 2019 Government GHG Conversion Factors for Company Reporting: Methodology Paper for Emission Factors.
Waste	US EPA Waste Reduction Model (WARM) US EPA Facts and Figures on Materials, Wastes and Recycling Event Waste Exposé: The Dirty Dozen Municipal solid waste factsheet
GHG Equivalencies	EPA Greenhouse Gas Equivalencies Calculator

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