WHUSpot Beamer Template

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What Are Prime Numbers?

Definition

A prime number is a number that has exactly two divisors.

- 2 is prime (two divisors: 1 and 2).

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Definition

A prime number is a number that has exactly two divisors.

- 2 is prime (two divisors: 1 and 2).
- 3 is prime (two divisors: 1 and 3).
- 4 is not prime (three divisors: 1, 2 and 4)

There Is No Largest Prime Number

The proof uses *reductio ad absurdum*.

Theorem

There is no largest prime number.

Proof.

1. Suppose p were the largest prime number.

4. But $q + 1$ is greater than 1, thus divisible by some prime number not in the first p numbers.

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What's Still To Do?

Answered Questions

How many primes are there?

Open Questions

Is every even number the sum of two primes?

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- Answered Questions
  - How many primes are there?
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What's Still To Do?

Answered Questions

How many primes are there?

Open Questions

Is every even number the sum of two primes? [1]

An Algorithm For Finding Primes Numbers.

```
int main (void)
{
 std::vector<bool> is_prime (100, true);
 for (int i = 2; i < 100; i++)



 return 0;
}
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 if (is_prime[i])
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 std::cout << i << " ";
 for (int j = i; j < 100;
 is_prime [j] = false, j+=i);
 }
 return 0;
}
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An Algorithm For Finding Primes Numbers.

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int main (void)
{
 std::vector<bool> is_prime (100, true);
 for (int i = 2; i < 100; i++)
 if (is_prime[i])
 {
 std::cout << i << " ";
 for (int j = i; j < 100;
 is_prime [j] = false, j+=i);
 }
 return 0;
}
```

Note the use of `std::`.

<+-> on a frame

Theorem

$A = B$.

<+-> on a frame

Theorem

$A = B$.

Proof.

<+-> on a frame

Theorem

$A = B$.

Proof.

- Clearly, $A = C$.
- Thus $A = B$.

<+-> on a frame

Theorem

$A = B$.

Proof.

- Clearly, $A = C$.
- As shown earlier, $C = B$.
- Thus $A = B$.

Overlays

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Overlays

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Overlays

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  - Shown from second slide on.
  - Shown from third slide on.
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Overlays

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Overlays

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Part I

Review of Previous Lecture

- First item.

Jump to second slide

- First item.
- Second item.

Jump to second slide

- First item.
- Second item.
- Third item.

▸ Jump to second slide

repeating a frame

- First subject.
- Second subject.
- Third subject.

repeating a frame

- First subject.
- Second subject.
- Third subject.

Some stuff explaining more on the second matter.

repeating a frame

- First subject.
- Second subject.
- Third subject.

- Eggs

- Eggs
- Plants

- Eggs
- Plants
- Animals

[Goldbach, 1742] Christian Goldbach.
A problem we should try to solve before the ISPN '43 deadline,
Letter to Leonhard Euler, 1742.