The best version of trade: let time = 1000;

var time2 = 500;

var time3 = 1000;

let intervalId1, intervalId2, intervalId3, intervalId4, intervalId5, intervalId6, intervalcanvas;

let countryOneLaborGoodOne;

let countryOneLaborGoodTwo;

let countryTwoLaborGoodOne;

let countryTwoLaborGoodTwo;

function displayGif() {

//document.getElementById('gif-trade').style.display = 'block';

fillCanvasWithColorTransition();

decidePPF\_animation();

document.getElementById('start-trade-button').style.display = 'none';

wageArrows();

wageMessages();

 }

let difference;

let steps;

let difference2;

let steps2;

function calculateDifference() {

  difference = Math.abs(worldPrice - countryOnePriceRatioGood1);

  steps = Math.round(difference / 0.01); // Ensure positive steps

  console.log("steps", steps);

  difference2 = Math.abs(countryTwoPriceRatioGood1 - worldPrice);

  steps2 = Math.round(difference2 / 0.01); // Ensure positive steps

  console.log("steps2", steps2);

}

let totalLabor;

function setIndustries() {

  countryOneLaborGoodOne = countryOneLabor % 2 === 0 ? countryOneLabor / 2 : (countryOneLabor + 1) / 2;

  countryOneLaborGoodTwo = countryOneLabor % 2 === 0 ? countryOneLabor / 2 : (countryOneLabor - 1) / 2;

  countryTwoLaborGoodOne = countryTwoLabor % 2 === 0 ? countryTwoLabor / 2 : (countryTwoLabor - 1) / 2;

  countryTwoLaborGoodTwo = countryTwoLabor % 2 === 0 ? countryTwoLabor / 2 : (countryTwoLabor + 1) / 2;

  totalLabor = countryOneLaborGoodOne + countryOneLaborGoodTwo;

  console.log("totalLabor", totalLabor);

}

function displayIndustriesCountryOne() {

  document.querySelectorAll('[id^="industries\_country\_one"]').forEach(function(element) {

    element.style.display = 'block'});

}

function hideIndustriesCountryOne() {

  document.querySelectorAll('[id^="industries\_country\_one"]').forEach(function(element) {

    element.style.display = 'none'});

}

function displayIndustriesCountryTwo() {

  document.querySelectorAll('[id^="industries\_country\_two"]').forEach(function(element) {

    element.style.display = 'block'});

}

function hideIndustriesCountryTwo() {

  document.querySelectorAll('[id^="industries\_country\_two"]').forEach(function(element) {

    element.style.display = 'none'});

}

function adjustPrices() {

  if (countryOneMPLRatioGood1 > countryTwoMPLRatioGood1) {

    calculateDifference();

    //startInterval1();

    //startInterval2();

    startInterval3();

    startInterval4();

    //startInterval5();

    //startInterval6();

    //startInterval7();

    document.querySelectorAll('[id^="arrow\_price\_country\_one\_good\_one\_green"]').forEach(function(element) {

      element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_price\_country\_one\_good\_two\_red"]').forEach(function(element) {

      element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_price\_country\_two\_good\_two\_green"]').forEach(function(element) {

      element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_price\_country\_two\_good\_one\_red"]').forEach(function(element) {

      element.style.display = 'block'});

  } else if (countryTwoMPLRatioGood1 > countryOneMPLRatioGood1) {

    calculateDifference();

    //startInterval1Reverse();

    //startInterval2Reverse();

    startInterval3();

    startInterval4();

    //startInterval5Reverse();

    //startInterval6Reverse();

    document.querySelectorAll('[id^="arrow\_price\_country\_one\_good\_one\_red"]').forEach(function(element) {

      element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_price\_country\_one\_good\_two\_green"]').forEach(function(element) {

      element.style.display = 'block'})

    document.querySelectorAll('[id^="arrow\_price\_country\_two\_good\_two\_red"]').forEach(function(element) {

      element.style.display = 'block'})

    document.querySelectorAll('[id^="arrow\_price\_country\_two\_good\_one\_green"]').forEach(function(element) {

      element.style.display = 'block'})

  }

}

function startInterval1() {

  intervalId1 = setInterval(function() {

    if (countryOnePriceRatioGood1 < worldPrice) {

      PRICEcountryOneGoodOne += 0.01;

      PRICEcountryOneGoodTwo -= 0.01;

      PRICEcountryOneGoodOne = Math.round((PRICEcountryOneGoodOne + Number.EPSILON) \* 100) / 100;

      PRICEcountryOneGoodTwo = Math.round((PRICEcountryOneGoodTwo + Number.EPSILON) \* 100) / 100;

      countryOnePriceRatioGood1 = PRICEcountryOneGoodOne / PRICEcountryOneGoodTwo;

      countryOnePriceRatioGood1 = Math.round((countryOnePriceRatioGood1 + Number.EPSILON) \* 100) / 100;

      countryOnePriceRatioGood2 = PRICEcountryOneGoodTwo / PRICEcountryOneGoodOne;

      countryOnePriceRatioGood2 = Math.round((countryOnePriceRatioGood2 + Number.EPSILON) \* 100) / 100;

      document.querySelectorAll('[id^="price\_country\_one\_good\_one"]').forEach(function(element) {

        element.textContent = PRICEcountryOneGoodOne;});

      document.querySelectorAll('[id^="price\_country\_one\_good\_two"]').forEach(function(element) {

        element.textContent = PRICEcountryOneGoodTwo;});

      document.querySelectorAll('[id^="price\_ratio\_country\_one\_good\_one"]').forEach(function(element) {

        element.textContent = countryOnePriceRatioGood1; });

      document.querySelectorAll('[id^="price\_ratio\_country\_one\_good\_two"]').forEach(function(element) {

        element.textContent = countryOnePriceRatioGood2; });

        wages();

    } else  {

      clearInterval(intervalId1);

    }

  }, time);

}

function startInterval2() {

  intervalId2 = setInterval(function() {

    if (countryTwoPriceRatioGood1 > worldPrice) {

      PRICEcountryTwoGoodOne -= 0.01;

      PRICEcountryTwoGoodTwo += 0.01;

      PRICEcountryTwoGoodOne = Math.round((PRICEcountryTwoGoodOne + Number.EPSILON) \* 100) / 100;

      PRICEcountryTwoGoodTwo = Math.round((PRICEcountryTwoGoodTwo + Number.EPSILON) \* 100) / 100;

      countryTwoPriceRatioGood1 = PRICEcountryTwoGoodOne / PRICEcountryTwoGoodTwo;

      countryTwoPriceRatioGood1 = Math.round((countryTwoPriceRatioGood1 + Number.EPSILON) \* 100) / 100;

      countryTwoPriceRatioGood2 = PRICEcountryTwoGoodTwo / PRICEcountryTwoGoodOne;

      countryTwoPriceRatioGood2 = Math.round((countryTwoPriceRatioGood2 + Number.EPSILON) \* 100) / 100;

      document.querySelectorAll('[id^="price\_country\_two\_good\_one"]').forEach(function(element) {

        element.textContent = PRICEcountryTwoGoodOne;});

      document.querySelectorAll('[id^="price\_country\_two\_good\_two"]').forEach(function(element) {

        element.textContent = PRICEcountryTwoGoodTwo;});

      document.querySelectorAll('[id^="price\_ratio\_country\_two\_good\_one"]').forEach(function(element) {

        element.textContent = countryTwoPriceRatioGood1;});

      document.querySelectorAll('[id^="price\_ratio\_country\_two\_good\_two"]').forEach(function(element) {

        element.textContent = countryTwoPriceRatioGood2;});

        wages();

    } else {

      clearInterval(intervalId2); // Stop the interval

    }

  }, time);

}

function startInterval3() {

  intervalId3 = setInterval(function() {

    if (countryOnePriceRatioGood1 > countryTwoPriceRatioGood1) {

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_one"]').forEach(function(element) {

      element.textContent = ">"; });

    } else if (countryOnePriceRatioGood1 < countryTwoPriceRatioGood1) {

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_one"]').forEach(function(element) {

        element.textContent = "<"; });

    } else {

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_one"]').forEach(function(element) {

        element.textContent = "="; });

        clearInterval(intervalId3); // Stop the interval

      }

    }, time);

}

function startInterval4() {

  intervalId4 = setInterval(function() {

    if (countryOnePriceRatioGood2 > countryTwoPriceRatioGood2) {

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_two"]').forEach(function(element) {

      element.textContent = ">"; });

    } else if (countryOnePriceRatioGood2 < countryTwoPriceRatioGood2) {

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_two"]').forEach(function(element) {

        element.textContent = "<"; });

    } else {

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_two"]').forEach(function(element) {

        element.textContent = "="; });

        clearInterval(intervalId4); // Stop the interval

      }

    }, time);

}

let CountryOnelaborStep;

let CountryTwoLaborStep;

function startInterval5() {

  let previousLaborGoodOne = Math.floor(countryOneLaborGoodOne);

  let previousLaborGoodTwo = Math.floor(countryOneLaborGoodTwo);

  intervalId5 = setInterval(function() {

    if (countryOneLaborGoodTwo > 0) {

      let totalLabor = countryOneLaborGoodOne + countryOneLaborGoodTwo;

      CountryOnelaborStep = (Math.round(totalLabor / 2)) / steps;

      console.log("CountryOnelaborStep", CountryOnelaborStep);

      if (CountryOnelaborStep < countryOneLaborGoodTwo) {

        countryOneLaborGoodOne += CountryOnelaborStep;

        countryOneLaborGoodTwo -= CountryOnelaborStep;

      } else {

        countryOneLaborGoodOne += countryOneLaborGoodTwo;

        countryOneLaborGoodTwo = 0;

      }

      // Update HTML only when the floor value changes

      if (Math.floor(countryOneLaborGoodOne) !== previousLaborGoodOne) {

        document.querySelectorAll('[id^="country\_one\_labor\_good\_one"]').forEach(function(element) {

          element.textContent = Math.floor(countryOneLaborGoodOne);

        });

        previousLaborGoodOne = Math.floor(countryOneLaborGoodOne);

      }

      if (Math.floor(countryOneLaborGoodTwo) !== previousLaborGoodTwo) {

        document.querySelectorAll('[id^="country\_one\_labor\_good\_two"]').forEach(function(element) {

          element.textContent = Math.floor(countryOneLaborGoodTwo);

        });

        previousLaborGoodTwo = Math.floor(countryOneLaborGoodTwo);

      }

      document.querySelectorAll('[id^="arrow\_country\_one\_labor\_good\_one\_red"]').forEach(function(element) {

        element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_country\_one\_labor\_good\_two\_green"]').forEach(function(element) {

      element.style.display = 'block'});

    } else {

      clearInterval(intervalId5);

    }

  }, time);

}

function startInterval6() {

  intervalId6 = setInterval(function() {

    if (countryTwoLaborGoodOne > 0) {

      CountryTwoLaborStep = (Math.round(totalLabor / 2)) / steps2;

      if (CountryTwoLaborStep < countryTwoLaborGoodOne) {

        countryTwoLaborGoodOne -= CountryTwoLaborStep;

        countryTwoLaborGoodTwo += CountryTwoLaborStep;

      } else {

        countryTwoLaborGoodTwo += countryTwoLaborGoodOne;

        countryTwoLaborGoodOne = 0;

      }

      document.querySelectorAll('[id^="country\_two\_labor\_good\_one"]').forEach(function(element) {

        element.textContent = Math.floor(countryTwoLaborGoodOne);

      });

      document.querySelectorAll('[id^="country\_two\_labor\_good\_two"]').forEach(function(element) {

        element.textContent = Math.floor(countryTwoLaborGoodTwo);

      });

      document.querySelectorAll('[id^="arrow\_country\_two\_labor\_good\_one\_green"]').forEach(function(element) {

        element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_country\_two\_labor\_good\_two\_red"]').forEach(function(element) {

      element.style.display = 'block'});

    } else {

      clearInterval(intervalId6);

    }

  }, time);

}

function startInterval1Reverse() {

  intervalId1 = setInterval(function() {

    if (countryOnePriceRatioGood2 < worldPrice) {

      PRICEcountryOneGoodTwo += 0.01;

      PRICEcountryOneGoodOne -= 0.01;

      PRICEcountryOneGoodOne = Math.round((PRICEcountryOneGoodOne + Number.EPSILON) \* 100) / 100;

      PRICEcountryOneGoodTwo = Math.round((PRICEcountryOneGoodTwo + Number.EPSILON) \* 100) / 100;

      countryOnePriceRatioGood1 = PRICEcountryOneGoodOne / PRICEcountryOneGoodTwo;

      countryOnePriceRatioGood1 = Math.round((countryOnePriceRatioGood1 + Number.EPSILON) \* 100) / 100;

      countryOnePriceRatioGood2 = PRICEcountryOneGoodTwo / PRICEcountryOneGoodOne;

      countryOnePriceRatioGood2 = Math.round((countryOnePriceRatioGood2 + Number.EPSILON) \* 100) / 100;

      document.querySelectorAll('[id^="price\_country\_one\_good\_one"]').forEach(function(element) {

        element.textContent = PRICEcountryOneGoodOne;});

      document.querySelectorAll('[id^="price\_country\_one\_good\_two"]').forEach(function(element) {

        element.textContent = PRICEcountryOneGoodTwo;});

      document.querySelectorAll('[id^="price\_ratio\_country\_one\_good\_one"]').forEach(function(element) {

        element.textContent = countryOnePriceRatioGood1; });

      document.querySelectorAll('[id^="price\_ratio\_country\_one\_good\_two"]').forEach(function(element) {

        element.textContent = countryOnePriceRatioGood2; });

        wages();

    } else {

      clearInterval(intervalId1);

    }

  }, time);

}

function startInterval2Reverse() {

  intervalId2 = setInterval(function() {

    if (countryTwoPriceRatioGood2 > worldPrice) {

      PRICEcountryTwoGoodOne += 0.01;

      PRICEcountryTwoGoodTwo -= 0.01;

      PRICEcountryTwoGoodOne = Math.round((PRICEcountryTwoGoodOne + Number.EPSILON) \* 100) / 100;

      PRICEcountryTwoGoodTwo = Math.round((PRICEcountryTwoGoodTwo + Number.EPSILON) \* 100) / 100;

      countryTwoPriceRatioGood1 = PRICEcountryTwoGoodOne / PRICEcountryTwoGoodTwo;

      countryTwoPriceRatioGood1 = Math.round((countryTwoPriceRatioGood1 + Number.EPSILON) \* 100) / 100;

      countryTwoPriceRatioGood2 = PRICEcountryTwoGoodTwo / PRICEcountryTwoGoodOne;

      countryTwoPriceRatioGood2 = Math.round((countryTwoPriceRatioGood2 + Number.EPSILON) \* 100) / 100;

      document.querySelectorAll('[id^="price\_country\_two\_good\_one"]').forEach(function(element) {

        element.textContent = PRICEcountryTwoGoodOne;});

      document.querySelectorAll('[id^="price\_country\_two\_good\_two"]').forEach(function(element) {

        element.textContent = PRICEcountryTwoGoodTwo;});

      document.querySelectorAll('[id^="price\_ratio\_country\_two\_good\_one"]').forEach(function(element) {

        element.textContent = countryTwoPriceRatioGood1;});

      document.querySelectorAll('[id^="price\_ratio\_country\_two\_good\_two"]').forEach(function(element) {

        element.textContent = countryTwoPriceRatioGood2;});

        wages();

    } else {

      clearInterval(intervalId2); // Stop the interval

    }

  }, time);

}

function startInterval5Reverse() {

  intervalId5 = setInterval(function() {

    if (countryOneLaborGoodOne > 0) {

      countryOneLaborGoodOne -= 1

      countryOneLaborGoodTwo +=1

      document.querySelectorAll('[id^="country\_one\_labor\_good\_one"]').forEach(function(element) {

      element.textContent = countryOneLaborGoodOne });

      document.querySelectorAll('[id^="country\_one\_labor\_good\_two"]').forEach(function(element) {

      element.textContent = countryOneLaborGoodTwo });

      document.querySelectorAll('[id^="arrow\_country\_one\_labor\_good\_one\_red"]').forEach(function(element) {

        element.style.display = 'block'});

      document.querySelectorAll('[id^="arrow\_country\_one\_labor\_good\_two\_green"]').forEach(function(element) {

        element.style.display = 'block'});

    } else {

        clearInterval(intervalId5); // Stop the interval

      }

    }, time);

}

function startInterval6Reverse() {

    intervalId6 = setInterval(function() {

    if (countryTwoLaborGoodTwo > 0) {

    countryTwoLaborGoodOne += 1

    countryTwoLaborGoodTwo -=1

    document.querySelectorAll('[id^="country\_two\_labor\_good\_one"]').forEach(function(element) {

    element.textContent = countryTwoLaborGoodOne });

    document.querySelectorAll('[id^="country\_two\_labor\_good\_two"]').forEach(function(element) {

    element.textContent = countryTwoLaborGoodTwo });

    document.querySelectorAll('[id^="arrow\_country\_two\_labor\_good\_one\_green"]').forEach(function(element) {

      element.style.display = 'block'});

    document.querySelectorAll('[id^="arrow\_country\_two\_labor\_good\_two\_red"]').forEach(function(element) {

      element.style.display = 'block'});

  } else {

    clearInterval(intervalId6); // Stop the interval

  }

  }, time3);

}

function anotherGood() {

  document.getElementById('price-equalization-one').style.display = 'none';

  document.getElementById('price-st-good-one').style.display = 'none';

  document.getElementById('price-equalization-container-one').style.display = 'none';

  document.getElementById('price-equalization-two').style.display = 'block';

  document.getElementById('price-equalization-container-two').style.display = 'flex';

  document.getElementById('price-st-good-two').style.display = 'table';

}

function anotherGood2() {

  document.getElementById('price-equalization-two').style.display = 'none';

  document.getElementById('price-st-good-two').style.display = 'none';

  document.getElementById('price-equalization-container-two').style.display = 'none';

  document.getElementById('price-equalization-one').style.display = 'block';

  document.getElementById('price-equalization-container-one').style.display = 'flex';

  document.getElementById('price-st-good-one').style.display = 'table';

}

let speedValue = document.getElementById('speed-value');

function increaseSpeed() {

  clearInterval(intervalId1);

  clearInterval(intervalId2);

  clearInterval(intervalId3);

  clearInterval(intervalId4);

  if (time > 100) {

    time -= 50;

    console.log('Time:', time); // Log the updated time

    let currentValue = parseInt(speedValue.textContent);

    speedValue.textContent = currentValue + 1;

    adjustPrices(); // Restart the intervals with the new time value

  } else if (time <= 100) {

    time -= 10;

    console.log('Time:', time); // Log the updated time

    let currentValue = parseInt(speedValue.textContent);

    speedValue.textContent = currentValue + 1;

    adjustPrices();

  } else if (time <= 50) {

    time -= 5;

    console.log('Time:', time); // Log the updated time

    let currentValue = parseInt(speedValue.textContent);

    speedValue.textContent = currentValue + 1;

    adjustPrices();

  } else if (time <=0) {

    clearInterval(intervalId1);

    clearInterval(intervalId2);

    clearInterval(intervalId3);

    clearInterval(intervalId4);

    speedValue.textContent = "max"; // Update speed value to 0

  } // Restart the intervals with the new time value

}

function increaseSpeed2() {

  canvasSpeed += 2;

}

function decreaseSpeed() {

  // Clear all intervals

  clearInterval(intervalId1);

  clearInterval(intervalId2);

  clearInterval(intervalId3);

  clearInterval(intervalId4);

  // Increment time by 50 (assuming time represents milliseconds)

  time += 50;

  console.log('Time:', time); // Log the updated time

  // Get the current speed value and update the display

  let currentValue = parseInt(speedValue.textContent);

  speedValue.textContent = Math.max(currentValue - 1, 0);

  adjustPrices();// Ensure speed value doesn't go below 0

  // Check if speed is now 0

  if (speedValue.textContent == 0) {

    clearInterval(intervalId1);

    clearInterval(intervalId2);

    clearInterval(intervalId3);

    clearInterval(intervalId4);

    clearInterval(intervalId4);// Assuming adjustPrices() restarts intervals or performs other actions

     // Restart the intervals with the new time value or perform other actions

  }

}

function decreaseSpeed2() {

  canvasSpeed -= 1;

}

function fillCanvas() {

  // Get the first canvas element

  var canvas1 = document.getElementById('canvas\_country\_one');

  var ctx1 = canvas1.getContext("2d");

  // Get the second canvas element

  var canvas2 = document.getElementById('canvas\_country\_two');

  var ctx2 = canvas2.getContext("2d");

  // Get the dimensions of the canvases

  var canvasWidth = canvas1.width;

  var canvasHeight = canvas1.height;

  // Calculate the midpoint of the canvases

  var midpointX = canvasWidth / 2;

  // Fill the left half of the first canvas with good one color

  ctx1.fillStyle = currentColorGoodOne;

  ctx1.fillRect(0, 0, midpointX, canvasHeight);

  // Fill the right half of the first canvas with good two color

  ctx1.fillStyle = currentColorGoodTwo;

  ctx1.fillRect(midpointX, 0, midpointX, canvasHeight);

  // Fill the left half of the second canvas with good two color

  ctx2.fillStyle = currentColorGoodOne;

  ctx2.fillRect(0, 0, midpointX, canvasHeight);

  // Fill the right half of the second canvas with good one color

  ctx2.fillStyle = currentColorGoodTwo;

  ctx2.fillRect(midpointX, 0, midpointX, canvasHeight);

}

function fillCanvasWithColorTransition() {

  calculateDifference(); // Ensure this is called to set up steps and steps2

  if (countryOneMPLRatioGood1 > countryTwoMPLRatioGood1) {

    animatePriceLaborCanvas('canvas\_country\_one', 'canvas\_country\_two', currentColorGoodOne, currentColorGoodTwo, 1, -1);

  } else if (countryOneMPLRatioGood1 < countryTwoMPLRatioGood1) {

    animatePriceLaborCanvas('canvas\_country\_one', 'canvas\_country\_two', currentColorGoodTwo, currentColorGoodOne, -1, 1);

  }

}

function animatePriceLaborCanvas(canvasId1, canvasId2, color1, color2, direction1, direction2) {

  var canvas1 = document.getElementById(canvasId1);

  var ctx1 = canvas1.getContext("2d");

  var canvas2 = document.getElementById(canvasId2);

  var ctx2 = canvas2.getContext("2d");

  var canvasWidth = canvas1.width;

  var canvasHeight = canvas1.height;

  var initialPriceRatio1 = countryOnePriceRatioGood1;

  var initialPriceRatio2 = countryTwoPriceRatioGood1;

  var totalSteps = Math.max(steps, steps2);

  var initialLabor1GoodOne = countryOneLaborGoodOne;

  var initialLabor2GoodTwo = countryTwoLaborGoodTwo;

  function updatePricesAndLabor(step) {

    // Update prices

    if (direction1 > 0) {

      countryOnePriceRatioGood1 = initialPriceRatio1 + (worldPrice - initialPriceRatio1) \* (step / totalSteps);

      countryTwoPriceRatioGood1 = initialPriceRatio2 - (initialPriceRatio2 - worldPrice) \* (step / totalSteps);

    } else {

      countryOnePriceRatioGood1 = initialPriceRatio1 - (initialPriceRatio1 - worldPrice) \* (step / totalSteps);

      countryTwoPriceRatioGood1 = initialPriceRatio2 + (worldPrice - initialPriceRatio2) \* (step / totalSteps);

    }

    PRICEcountryOneGoodOne = countryOnePriceRatioGood1 \* PRICEcountryOneGoodTwo;

    PRICEcountryTwoGoodOne = countryTwoPriceRatioGood1 \* PRICEcountryTwoGoodTwo;

    // Update labor based on price changes

    var laborProgress1 = (countryOnePriceRatioGood1 - initialPriceRatio1) / (worldPrice - initialPriceRatio1);

    var laborProgress2 = (countryTwoPriceRatioGood1 - initialPriceRatio2) / (worldPrice - initialPriceRatio2);

    if (direction1 > 0) {

      countryOneLaborGoodOne = initialLabor1GoodOne + (countryOneLabor - initialLabor1GoodOne) \* laborProgress1;

      countryOneLaborGoodTwo = countryOneLabor - countryOneLaborGoodOne;

      countryTwoLaborGoodTwo = initialLabor2GoodTwo + (countryTwoLabor - initialLabor2GoodTwo) \* laborProgress2;

      countryTwoLaborGoodOne = countryTwoLabor - countryTwoLaborGoodTwo;

    } else {

      countryOneLaborGoodTwo = initialLabor1GoodOne + (countryOneLabor - initialLabor1GoodOne) \* laborProgress1;

      countryOneLaborGoodOne = countryOneLabor - countryOneLaborGoodTwo;

      countryTwoLaborGoodOne = initialLabor2GoodTwo + (countryTwoLabor - initialLabor2GoodTwo) \* laborProgress2;

      countryTwoLaborGoodTwo = countryTwoLabor - countryTwoLaborGoodOne;

    }

    updatePriceDisplay();

    updateLaborDisplay();

  }

  function updateCanvas() {

    ctx1.clearRect(0, 0, canvasWidth, canvasHeight);

    ctx2.clearRect(0, 0, canvasWidth, canvasHeight);

    var fillWidth1 = (countryOneLaborGoodOne / countryOneLabor) \* canvasWidth;

    var fillWidth2 = (countryTwoLaborGoodTwo / countryTwoLabor) \* canvasWidth;

    ctx1.fillStyle = color1;

    ctx1.fillRect(0, 0, fillWidth1, canvasHeight);

    ctx1.fillStyle = color2;

    ctx1.fillRect(fillWidth1, 0, canvasWidth - fillWidth1, canvasHeight);

    ctx2.fillStyle = color2;

    ctx2.fillRect(0, 0, fillWidth2, canvasHeight);

    ctx2.fillStyle = color1;

    ctx2.fillRect(fillWidth2, 0, canvasWidth - fillWidth2, canvasHeight);

  }

  var step = 0;

  var intervalId = setInterval(function() {

    step++;

    updatePricesAndLabor(step);

    updateCanvas();

    if (step >= totalSteps) {

      clearInterval(intervalId);

      // Ensure final values are set correctly

      countryOnePriceRatioGood1 = worldPrice;

      countryTwoPriceRatioGood1 = worldPrice;

      updatePricesAndLabor(totalSteps);

      updateCanvas();

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_one"]').forEach(function(element) {

        element.textContent = "="; });

      document.querySelectorAll('[id^="sign\_relative\_price\_good\_two"]').forEach(function(element) {

        element.textContent = "="; });

    }

  }, time);

}

function updatePriceDisplay() {

  // Update price ratios

  document.querySelectorAll('[id^="price\_ratio\_country\_one\_good\_one"]').forEach(function(element) {

    element.textContent = countryOnePriceRatioGood1.toFixed(2);

  });

  document.querySelectorAll('[id^="price\_ratio\_country\_two\_good\_one"]').forEach(function(element) {

    element.textContent = countryTwoPriceRatioGood1.toFixed(2);

  });

  document.querySelectorAll('[id^="price\_ratio\_country\_one\_good\_two"]').forEach(function(element) {

    element.textContent = (1 / countryOnePriceRatioGood1).toFixed(2);

  });

  document.querySelectorAll('[id^="price\_ratio\_country\_two\_good\_two"]').forEach(function(element) {

    element.textContent = (1 / countryTwoPriceRatioGood1).toFixed(2);

  });

  // Update absolute prices

  document.querySelectorAll('[id^="price\_country\_one\_good\_one"]').forEach(function(element) {

    element.textContent = PRICEcountryOneGoodOne.toFixed(2);

  });

  document.querySelectorAll('[id^="price\_country\_one\_good\_two"]').forEach(function(element) {

    element.textContent = PRICEcountryOneGoodTwo.toFixed(2);

  });

  document.querySelectorAll('[id^="price\_country\_two\_good\_one"]').forEach(function(element) {

    element.textContent = PRICEcountryTwoGoodOne.toFixed(2);

  });

  document.querySelectorAll('[id^="price\_country\_two\_good\_two"]').forEach(function(element) {

    element.textContent = PRICEcountryTwoGoodTwo.toFixed(2);

  });

}

function updateLaborDisplay() {

  document.querySelectorAll('[id^="country\_one\_labor\_good\_one"]').forEach(function(element) {

    element.textContent = Math.round(countryOneLaborGoodOne);

  });

  document.querySelectorAll('[id^="country\_one\_labor\_good\_two"]').forEach(function(element) {

    element.textContent = Math.round(countryOneLaborGoodTwo);

  });

  document.querySelectorAll('[id^="country\_two\_labor\_good\_one"]').forEach(function(element) {

    element.textContent = Math.round(countryTwoLaborGoodOne);

  });

  document.querySelectorAll('[id^="country\_two\_labor\_good\_two"]').forEach(function(element) {

    element.textContent = Math.round(countryTwoLaborGoodTwo);

  });

}