|  |  |
| --- | --- |
| **//FUNCTION**  JavaScript without jQuery  var $ = function(id){  return document.getElementById(id);  }  **//FUNCTION**  var calculateMPG = function(){  var isValid = true;  **//USER INPUT**  var miles = $("miles").value;  var gallons = $("gallons").value;    **//VALIDATE USER INPUT**  if (isNaN(miles) || parseFloat(miles) <= 0){    $("error\_miles").firstChild.nodeValue = "enter a positive number";  isValid = false;  }  else{  $("error\_miles").firstChild.nodeValue = "\*";  }    if (isNaN(gallons) || parseFloat(gallons) <=0){  $("error\_gallons").firstChild.nodeValue = "enter a positive number";  isValid = false;  }  else{  $("error\_gallons").firstChild.nodeValue = "\*";  }  **//IF USER INPUTS ARE VALID, DO CALCULATION**  if (isValid == true){  miles = parseFloat(miles);  gallons = parseFloat(gallons);  var mpg = miles/gallons  $("answer").value = mpg.toFixed(2);  }  }  **//ONLOAD EVENT HANDLER**  window.onload = function () {  **//ATTACH BUTTONS TO EVENT HANDLERS**  $("execute").onclick = calculateMPG;  **//HIGHLIGHT THE FIRST TEXTBOX**  $("miles").focus(); } | **//FUNCTION**  JavaScript with jQuery  var calculateMPG = function(){  var isValid = true;  **//USER INPUT**  var miles = $("#miles").val();  var gallons = $("#gallons").val();  **//VALIDATE USER INPUT**  if(isNaN(miles) || parseFloat(miles) < =0){  $("#error\_miles").text("enter a positive number");  isValid = false;  }  else{  $("#error\_miles").text("\*");  }    if(isNaN(gallons) || parseFloat(gallons) <= 0){  $("#error\_gallons").text("enter a positive number");  isValid = false;  }  else{  $("#error\_gallons").text("\*");  }  **//IF USER INPUTS ARE VALID, DO CALCULATION**  if(isValid == true){  miles = parseFloat(miles);  gallons = parseFloat(gallons);  var mpg = miles/gallons;  $("#answer").val(mpg.toFixed(2));  }  }  **//ONLOAD EVENT HANDLER**  $(document).ready( function(){  **//ATTACH BUTTONS TO EVENT HANDLERS**  $("#execute").click(calculateMPG);  **//HIGHLIGHT THE FIRST TEXTBOX**  $("#miles").focus();  });  **The differences are highlighted.** |