<html>

<head>

<script type="text/javascript">

function clearForm()

{

document.getElementById("t").value = "";

document.getElementById("d").value = "";

document.getElementById("v").value = "";

if(document.getElementById("system").checked)

{

document.getElementById("ld").innerHTML = "feet";

document.getElementById("lv").innerHTML = "feet/sec";

}

else

{

document.getElementById("ld").innerHTML = "meters";

document.getElementById("lv").innerHTML = "meters/sec";

}

}

function roundTo4(raw)

{

strFloat = raw.toString();

var newFloat;

if(strFloat.indexOf(".") > 0 && strFloat.length - strFloat.indexOf(".") > 5)

{

strFloat = strFloat.substring(0,strFloat.indexOf(".") + 6);

var numFloat = parseFloat(strFloat);

var rndFloat = Math.round(numFloat \* 10000);

var temp1Float = rndFloat / 10000;

var temp2Float = temp1Float.toString();

newFloat = temp2Float.substring(0,temp2Float.indexOf(".") + 5);

}

else

{

newFloat = strFloat;

}

return newFloat;

}

function Gravity(box)

{

if(document.getElementById("system").checked)

{

if(box == "t")

{

// calculate distance

var seconds = document.getElementById(box).value;

var feet = (32.173 \* seconds \* seconds)/2;

document.getElementById("d").value = roundTo4(feet);

// calculate velocity

var vi = 32.173 \* seconds;

document.getElementById("v").value = roundTo4(vi);

}

if(box == "d")

{

// calculate time

var feet = document.getElementById(box).value;

var seconds = Math.sqrt( ( (2 \* feet) / 32) );

document.getElementById("t").value = roundTo4(seconds);

// calculate velocity

var vi = 32.173 \* seconds;

document.getElementById("v").value = roundTo4(vi);

}

if(box == "v")

{

// calculate time

var velocity = document.getElementById(box).value;

var seconds = velocity / 32;

document.getElementById("t").value = roundTo4(seconds);

// calculate distance

var feet = (32.173 \* seconds \* seconds)/2;

document.getElementById("d").value = roundTo4(feet);

}

}

else

{

if(box == "t")

{

// calculate distance

var seconds = document.getElementById(box).value;

var meters = (9.8 \* seconds \* seconds)/2;

var miles = meters/5280;

document.getElementById("d").value = roundTo4(meters);

// calculate velocity

var vi = 9.8 \* seconds;

document.getElementById("v").value = roundTo4(vi);

}

if(box == "d")

{

// calculate time

var feet = document.getElementById(box).value;

var seconds = Math.sqrt( ( (2 \* feet) / 9.8) );

document.getElementById("t").value = roundTo4(seconds);

// calculate velocity

var vi = 9.8 \* seconds;

document.getElementById("v").value = roundTo4(vi);

}

if(box == "v")

{

// calculate time

var velocity = document.getElementById(box).value;

var seconds = velocity / 9.8;

document.getElementById("t").value = roundTo4(seconds);

// calculate distance

var feet = (9.8 \* seconds \* seconds)/2;

document.getElementById("d").value = roundTo4(feet);

}

}

}

</script>

</head>

<body>

<form action="javascript:return false;">

<input id="system" type="radio" name="system" value="feet" onclick="clearForm()" checked />Feet

<input type="radio" name="system" value="meters" onclick="clearForm()" />Meters<br />

Time (sec):<input id="t" style="text-align:right" type="text" onchange="Gravity('t')"></input><br />

Distance: <input id="d" style="text-align:right" type="text" onchange="Gravity('d')"></input><label id="ld">feet</label><br />

Velocity: <input id="v" style="text-align:right" type="text" onchange="Gravity('v')"></input><label id="lv">feet/sec</label><br />

<button>Calculate</button><br />

</form>

</body>

</html>