
Subject: Is there a better way?

Posted by [Kelly Dean](#) on Tue, 10 Jun 1997 07:00:00 GMT

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Is there a better way to locate a value in a table (or array)? I would like to come in with an array of radaince values and convert them to temperatures. The method below only takes the one number (rad) then search for the best match in the table (or array).

If you can thing of a better method, send me a note.

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FUNCTION IS_THERE_A_BETTER_WAY, rad
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WVTEMParr = FINDGEN(200) + 170.
```

```
WVRADarr = FLTarr(200)
WVRADarr(0:9)  = [ 0.015, 0.016, 0.018, 0.019, 0.020, 0.022,
0.024, 0.025, 0.027, 0.029 ]
WVRADarr(10:19) = [ 0.031, 0.034, 0.036, 0.039, 0.041, 0.044,
0.047, 0.050, 0.053, 0.057 ]
WVRADarr(20:29) = [ 0.061, 0.064, 0.069, 0.073, 0.077, 0.082,
0.087, 0.092, 0.098, 0.104 ]
WVRADarr(30:39) = [ 0.110, 0.116, 0.122, 0.129, 0.137, 0.144,
0.152, 0.160, 0.169, 0.178 ]
WVRADarr(40:49) = [ 0.187, 0.197, 0.207, 0.218, 0.229, 0.241,
0.253, 0.265, 0.278, 0.292 ]
WVRADarr(50:59) = [ 0.306, 0.320, 0.335, 0.351, 0.367, 0.384,
0.401, 0.420, 0.438, 0.458 ]
WVRADarr(60:69) = [ 0.478, 0.499, 0.520, 0.542, 0.565, 0.589,
0.614, 0.639, 0.665, 0.692 ]
WVRADarr(70:79) = [ 0.720, 0.749, 0.779, 0.809, 0.841, 0.873,
0.907, 0.941, 0.977, 1.013 ]
WVRADarr(80:89) = [ 1.051, 1.090, 1.129, 1.170, 1.212, 1.256,
1.300, 1.346, 1.393, 1.441 ]
WVRADarr(90:99) = [ 1.490, 1.541, 1.593, 1.647, 1.701, 1.758,
1.815, 1.874, 1.935, 1.997 ]
WVRADarr(100:109) = [ 2.060, 2.125, 2.192, 2.260, 2.330, 2.401,
2.474, 2.549, 2.626, 2.704 ]
WVRADarr(110:119) = [ 2.784, 2.866, 2.949, 3.034, 3.122, 3.211,
3.302, 3.395, 3.490, 3.586 ]
WVRADarr(120:129) = [ 3.685, 3.786, 3.889, 3.994, 4.101, 4.210,
4.322, 4.435, 4.551, 4.669 ]
WVRADarr(130:139) = [ 4.790, 4.912, 5.037, 5.164, 5.294, 5.426,
5.560, 5.697, 5.836, 5.978 ]
```

```
WVRADarr(140:149) = [ 6.122, 6.269, 6.418, 6.570, 6.724, 6.881,  
7.041, 7.203, 7.369, 7.536 ]  
WVRADarr(150:159) = [ 7.707, 7.880, 8.057, 8.236, 8.418, 8.602,  
8.790, 8.981, 9.174, 9.371 ]  
WVRADarr(160:169) = [ 9.570, 9.773, 9.978, 10.187, 10.399, 10.614,  
10.832, 11.053, 11.277, 11.505 ]  
WVRADarr(170:179) = [11.736, 11.970, 12.207, 12.448, 12.692, 12.939,  
13.190, 13.444, 13.701, 13.962 ]  
WVRADarr(180:189) = [14.226, 14.494, 14.766, 15.040, 15.319, 15.601,  
15.886, 16.176, 16.468, 16.765 ]  
WVRADarr(190:199) = [17.065, 17.369, 17.676, 17.988, 18.303, 18.622,  
18.944, 19.271, 19.601, 19.935 ]
```

```
FOR i = 0 ,198 DO BEGIN  
  IF ( rad GT WVRADarr(i) AND rad LE WVRADarr(i+1) ) THEN BEGIN  
    TempK = WVTEMParr(i)  
  ENDIF  
ENDFOR  
  
RETURN, TempK  
END
```
