





### Defining Expressions

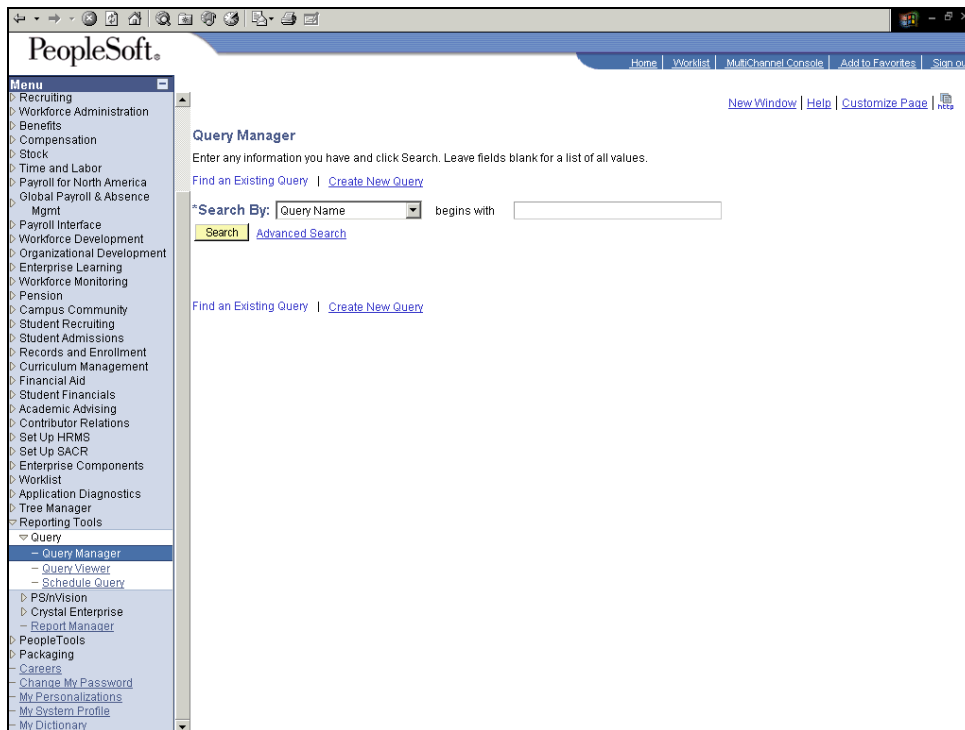
#### Concept

**Expressions** are calculations that PeopleSoft Query performs as part of a query. Use them when you must calculate a value that PeopleSoft Query does not provide by default (for example, to add the values from two fields together or to multiply a field value by a constant). An expression can be treated as a field query. When selected for output, you can change its column heading or sort it.

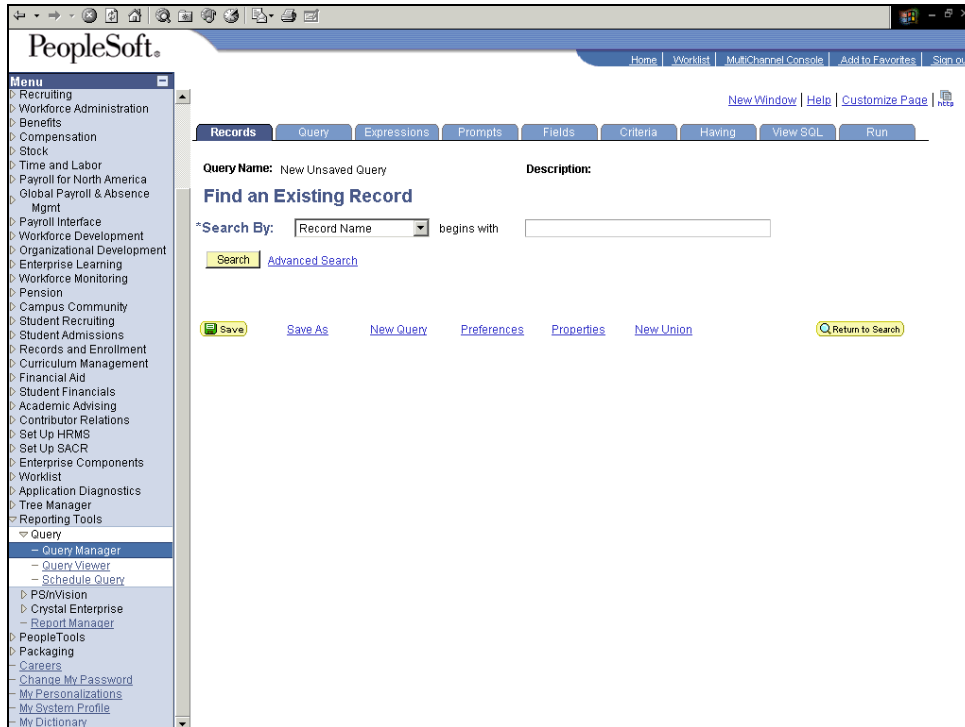
In this topic, you are going to create a query that displays the anticipated aid amount awarded per student per term. The data is totaled by term, but your institution will process the aid monthly to students. You want to divide the total amount for each student and term combination by four (the number of months in the term) to view the monthly amount.



### Procedure

Step	Action
1.	Begin by navigating to the <b>Records</b> page. Click the <b>Reporting Tools</b> link. 
2.	Click the <b>Query Manager</b> link. 



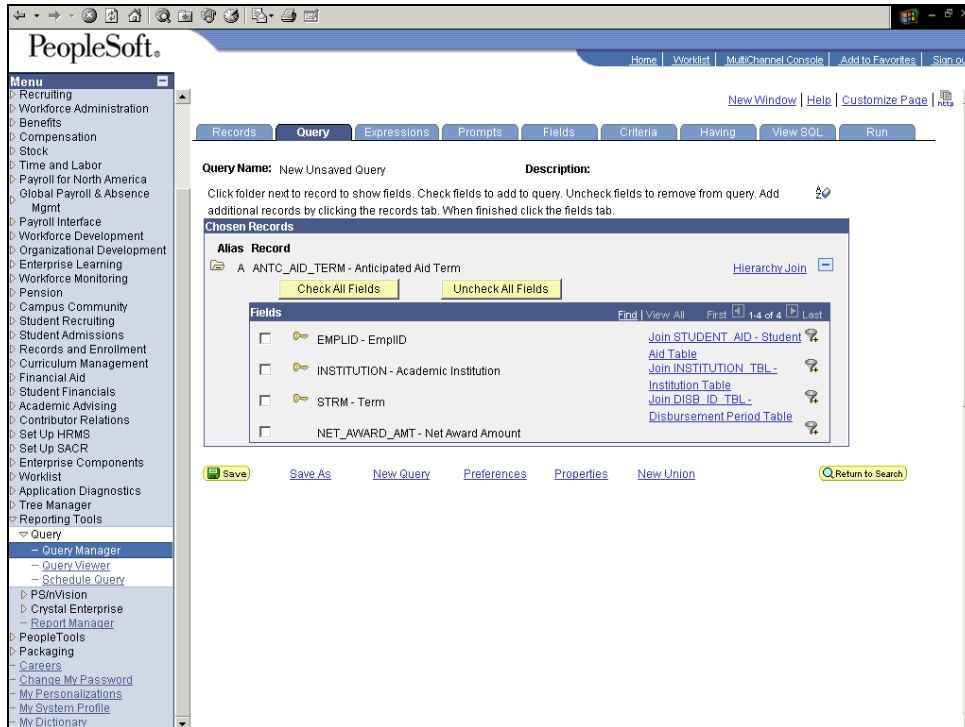
Step	Action
3.	Click the <b>Create New Query</b> link.



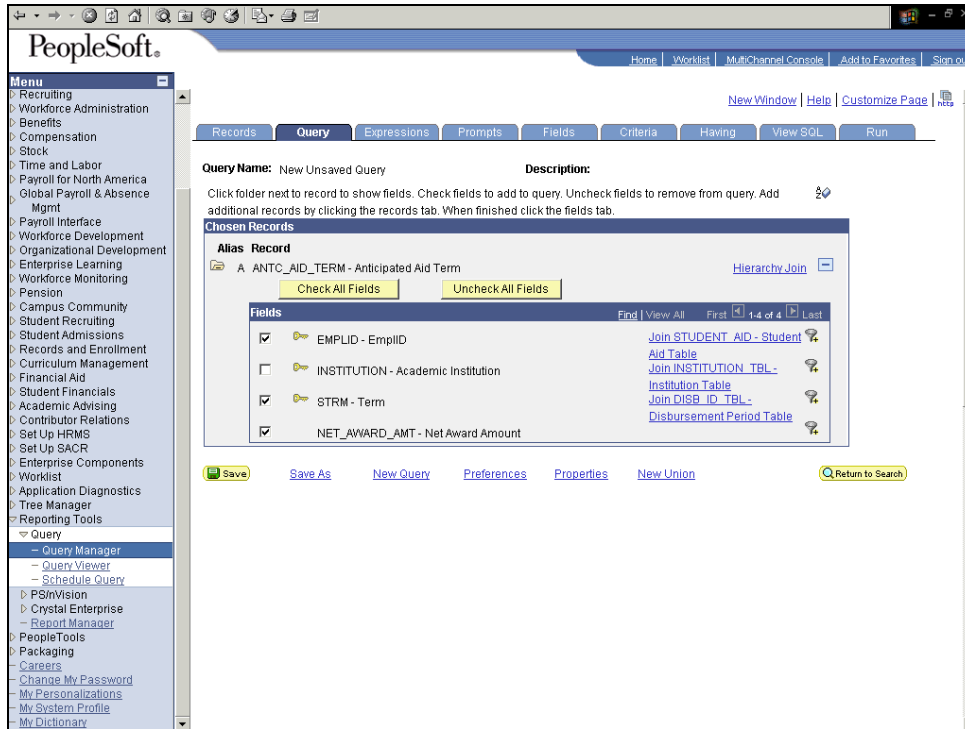
Step	Action
4.	The first step in creating a query is to find an existing record for the query. In this example, you will locate and use the Anticipated Aid Term record. Enter the desired information into the <b>Description</b> field. Enter <b>"ANTC_AID_TERM"</b> .
5.	Click the <b>Search</b> button. 
6.	Click the <b>Add Record</b> link. 

# Process Document

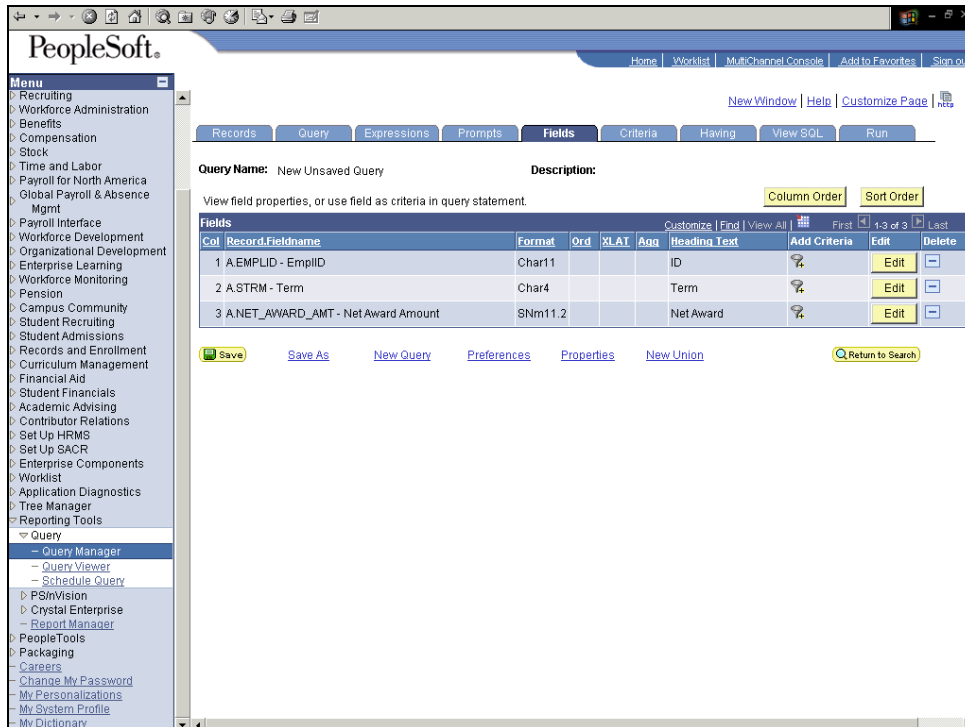
## Defining Expressions



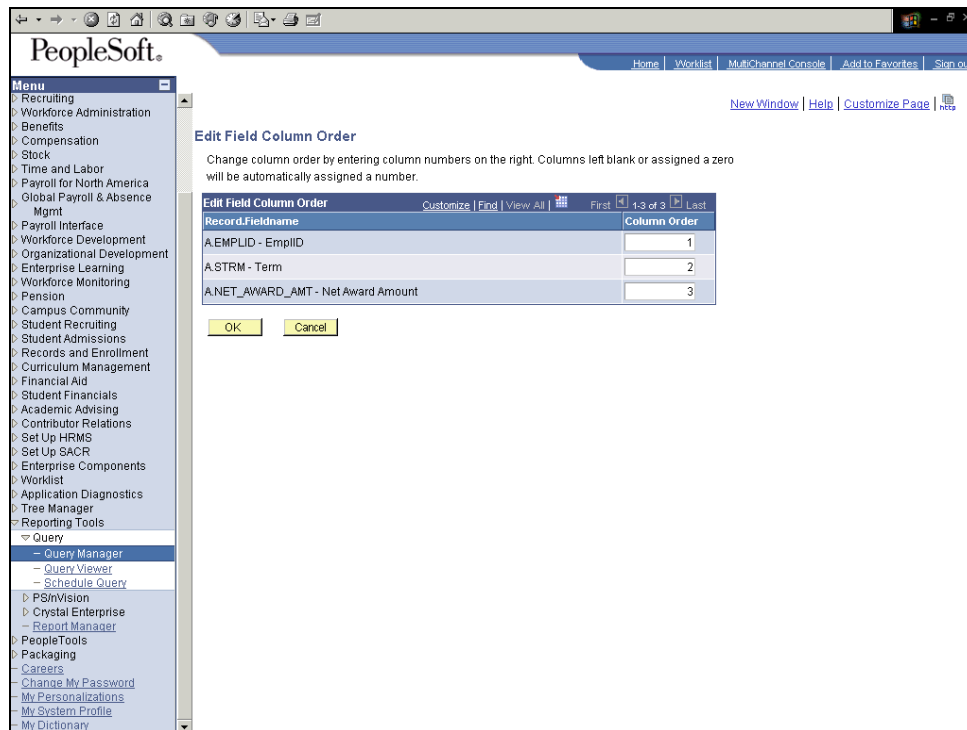
Step	Action
7.	Next, select the fields for the query. Click the <b>EMPLID</b> option. <input type="checkbox"/>
8.	Click the <b>STRM</b> option. <input type="checkbox"/>
9.	Click the <b>NET_AWARD_AMT</b> option. <input type="checkbox"/>



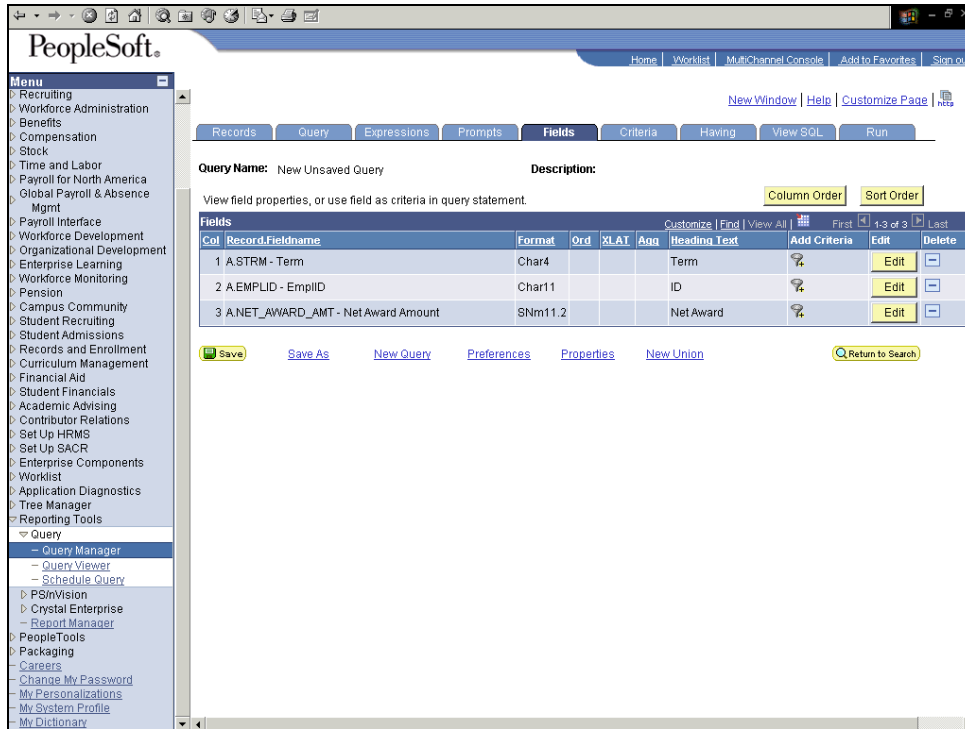
Step	Action
10.	Click the <b>Fields</b> tab.



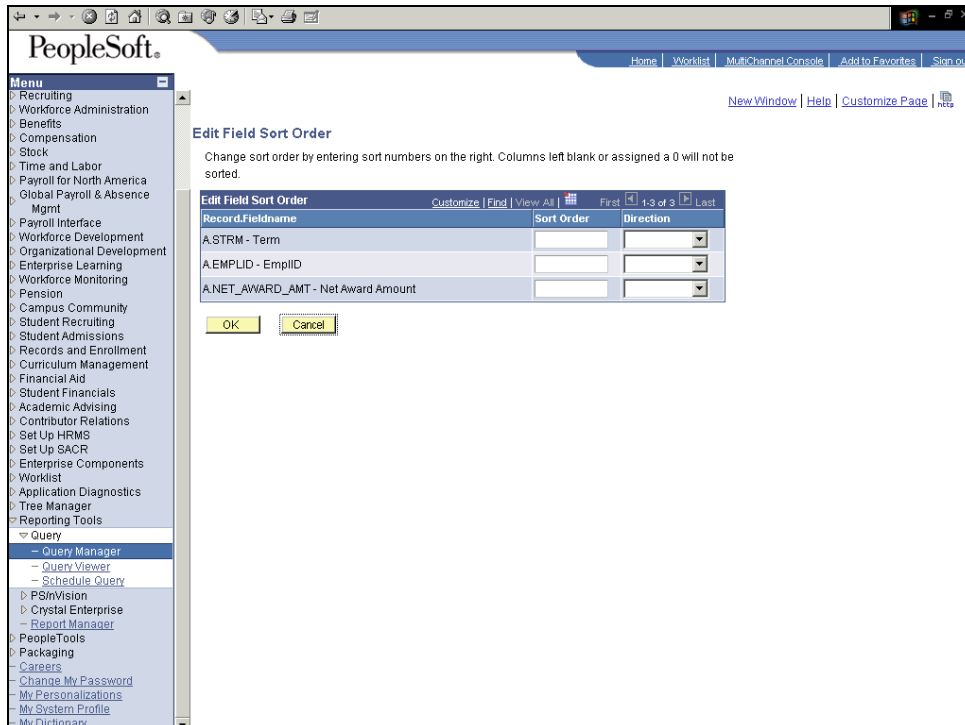
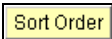
Step	Action
11.	<p>Use the <b>Fields</b> page to view how fields are selected for output, view the properties of each field, change headings, change column and sort orders, and apply aggregate values.</p> <p>In this example, want to edit the column and sort orders for the query results. Click the <b>Column Order</b> button.</p> <p><b>Column Order</b></p>



Step	Action
12.	You want to view the term values first, followed by the IDs, and then the amounts. Enter the desired information into the <b>Column Order</b> field. Enter "2".
13.	Click in the <b>Column Order</b> field. <input type="text" value="2"/>
14.	Enter the desired information into the <b>Column Order</b> field. Enter "1".
15.	Click the <b>OK</b> button. <b>OK</b>





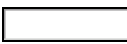

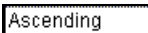

Step	Action
16.	Click the <b>Sort Order</b> button.

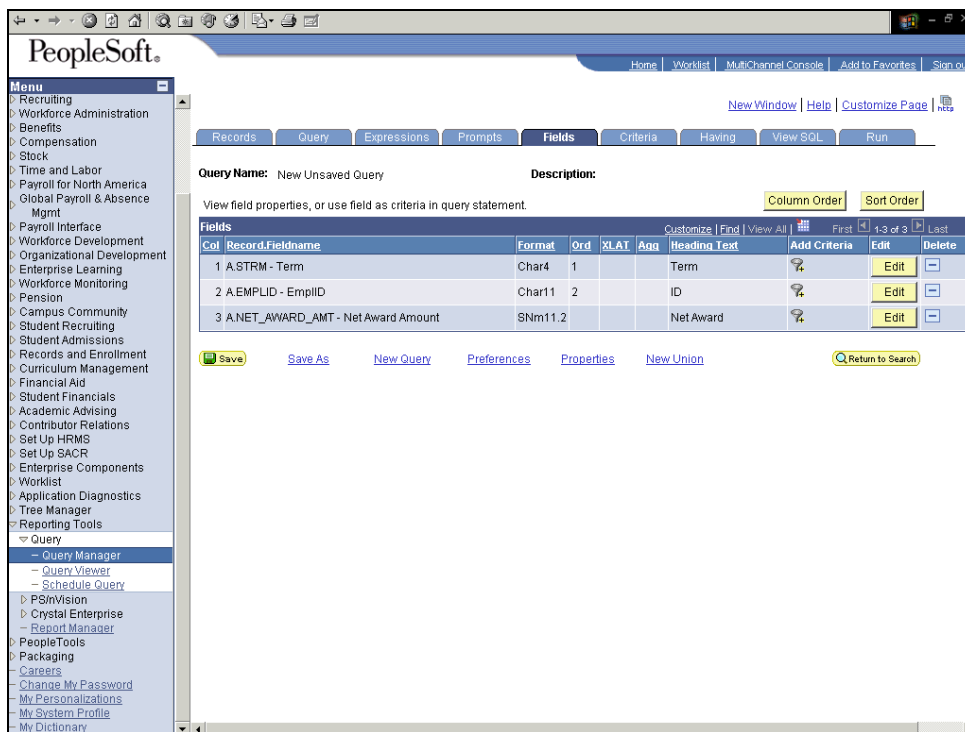



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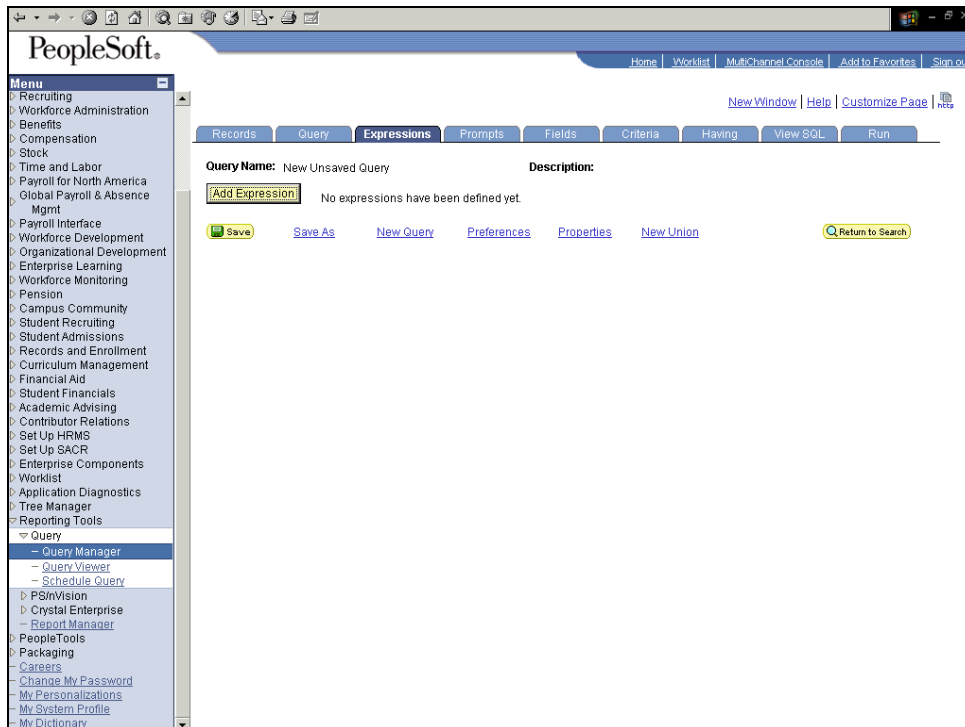
## Defining Expressions




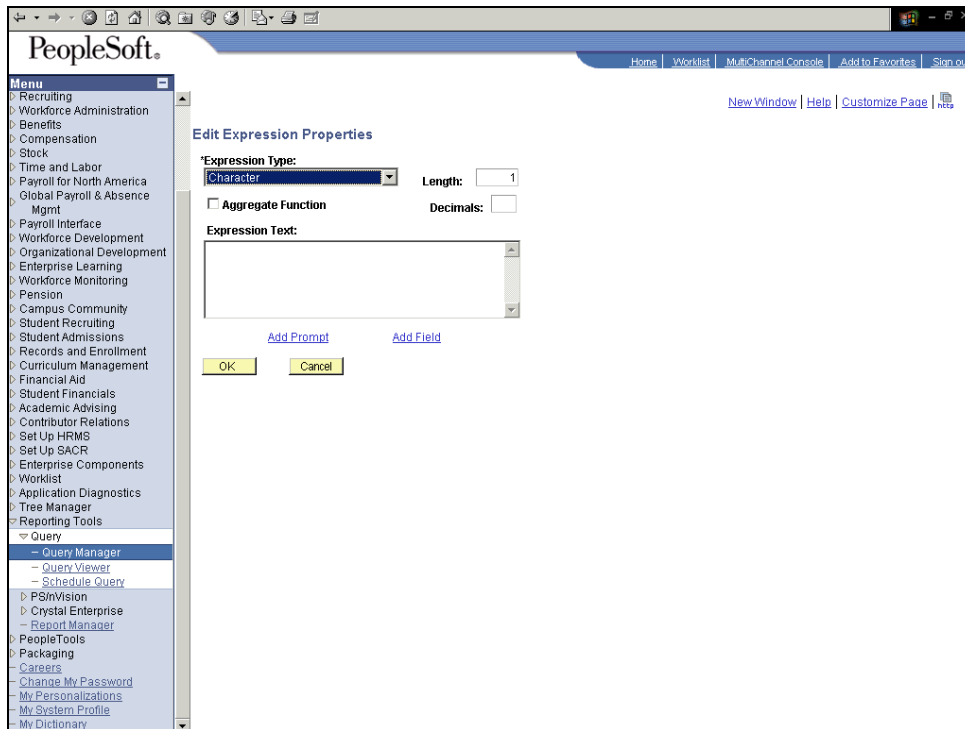
Step	Action
17.	You want to sort the data by term and then by ID within each term. Enter the desired information into the <b>Sort Order</b> field. Enter "1".
18.	Click the <b>Direction</b> list. 
19.	Click an entry in the list. 
20.	Click in the <b>Sort Order</b> field. 
21.	Enter the desired information into the <b>Sort Order</b> field. Enter "2".
22.	Click the <b>Direction</b> list. 
23.	Click an entry in the list. 
24.	Click the <b>OK</b> button. 


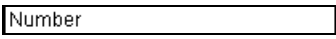





Step	Action
25.	<p>Next, you need to add the expression to divide the net amount by four to get a monthly amount result.</p> <p>Click the <b>Expressions</b> tab.</p> 

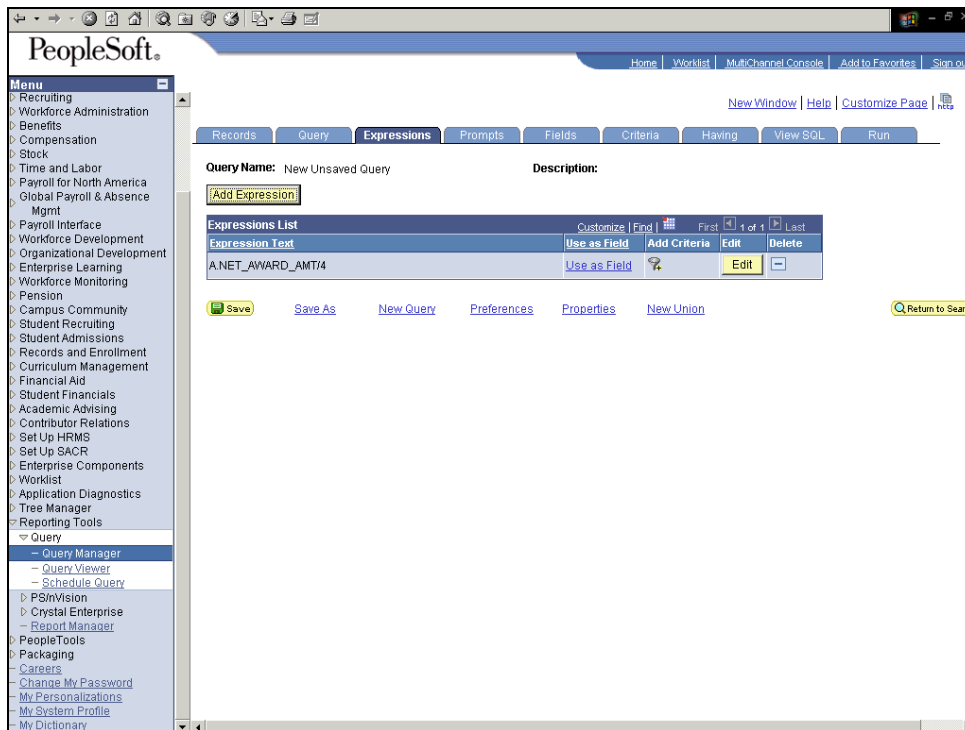


Step	Action
26.	<p>Use the <b>Expressions</b> page to add expression criteria.</p> <p>Click the <b>Add Expression</b> button.</p> 



Step	Action
27.	<p>Select an <b>Expression Type</b> from the drop-down list.</p> <p>If you select <b>Character</b>, enter the maximum length of the expression result in the <b>Length</b> field. If you select <b>Number</b> or <b>Signed Number</b>, enter the total number of digits in the <b>Length</b> field and the number of digits after the decimal point in the <b>Decimal</b> field.</p> <p>In this example, you are calculating a number. Click the <b>*Expression Type</b> list.</p> 
28.	<p>Click an entry in the list.</p> 
29.	<p>Click in the <b>Length</b> field.</p> 
30.	<p>In the <b>Length</b> field, ensure that you set the integer to a large enough number so that it will not truncate the number if you have not reserved enough places. For example; if you assign Length=2 and your result is 125, it will only display 12 because you have only reserved two places.</p> <p>Enter the desired information into the <b>Length</b> field. Enter "<b>10</b>".</p>
31.	<p>Select the <b>Aggregate Function</b> check box to create an aggregate function, such as Sum, Avg, or Count.</p>

Step	Action
32.	Click in the <b>Decimals</b> field. 
33.	If you entered Number or Signed Number as the expression type, enter the number of digits to the right of the decimal. Enter the desired information into the <b>Decimals</b> field. Enter "2".
34.	Click in the <b>Expression Text</b> field.
35.	If you know the field name, you can enter it. Precede the field name with an alias (A, B, and so on). If you mistype the field, you will receive an error message. Alternatively, you can click the Add Field link to add a field to this expression.  Add the additional expression text to the field name. For example *2 to multiply by two, and /3 to divide by three. Enter the desired information into the <b>Expression Text</b> field. Enter " <b>A.NET_AWARD_AMT/4</b> ".
36.	Click the <b>OK</b> button. 
37.	You maintain expressions on the <b>Expressions</b> page. You can: <ul style="list-style-type: none"> <li>• View all expressions.</li> <li>• Modify expressions by clicking the <b>Edit</b> button.</li> <li>• Delete expressions by clicking the <b>Delete (-)</b> button.</li> </ul>

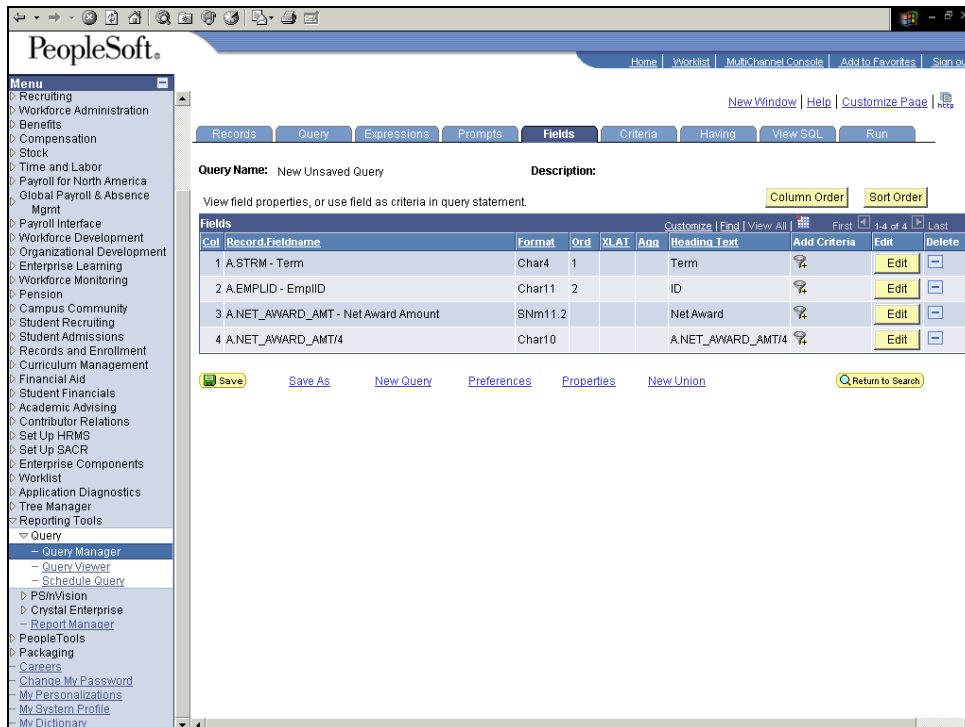


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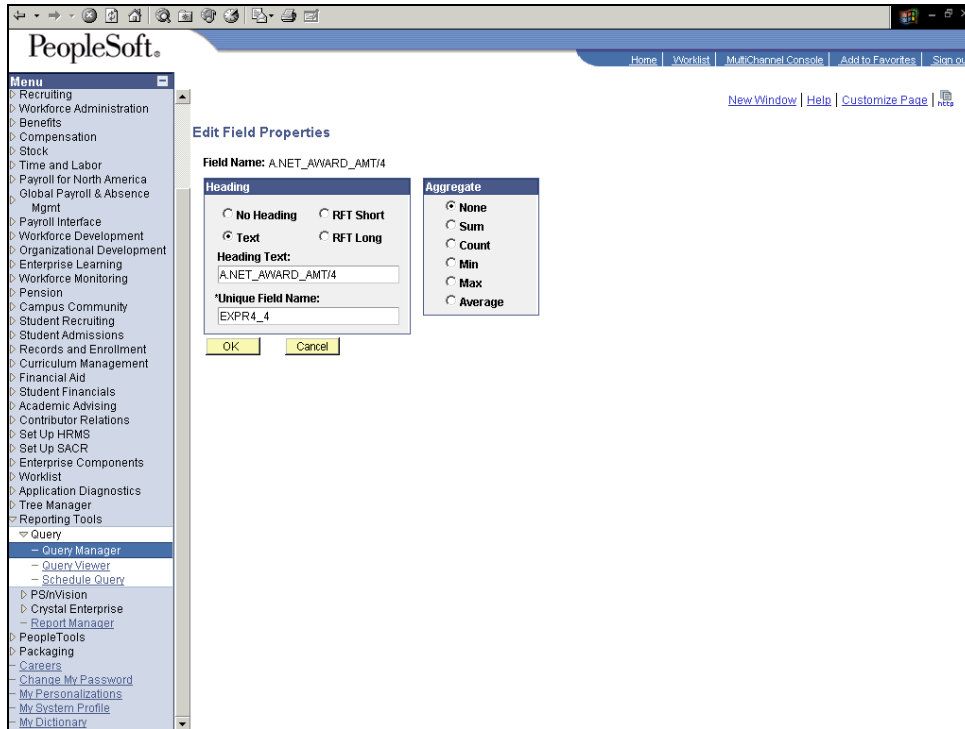
## Defining Expressions



Step	Action
38.	To display the result of the calculation in the query's output, select the expression for output and change the heading. Click the <b>Use as Field</b> link.  <a href="#">Use as Field</a>



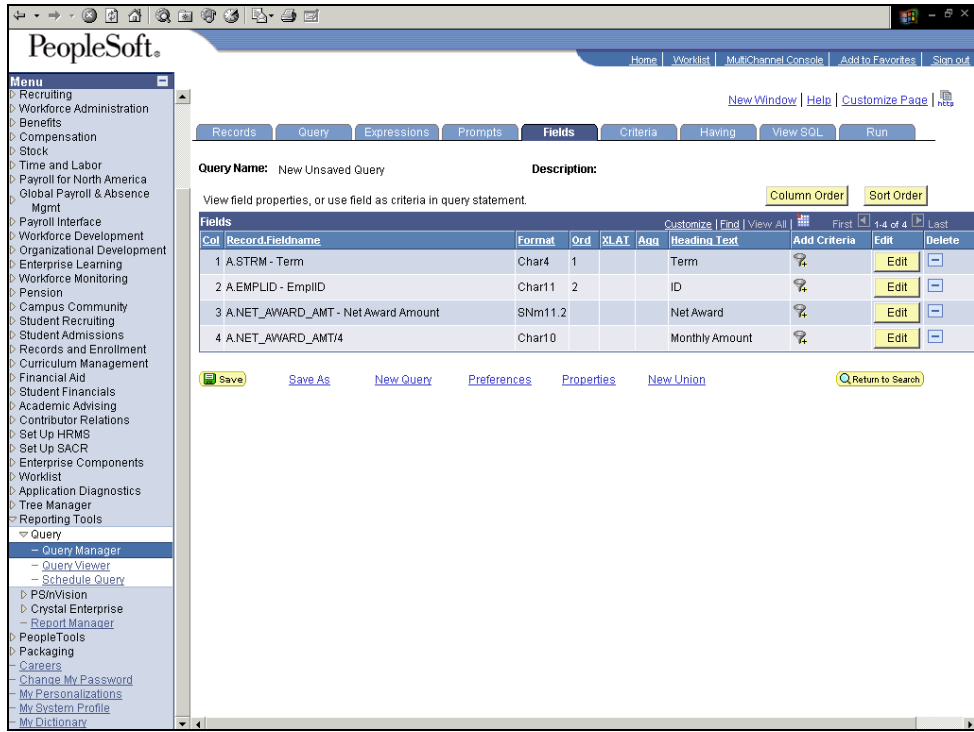
Step	Action
39.	An expression can be treated just as if it were a field in the query: select it for output, change its column heading, or choose it as an “order by” column. Click the <b>Edit</b> button.  <a href="#">Edit</a>



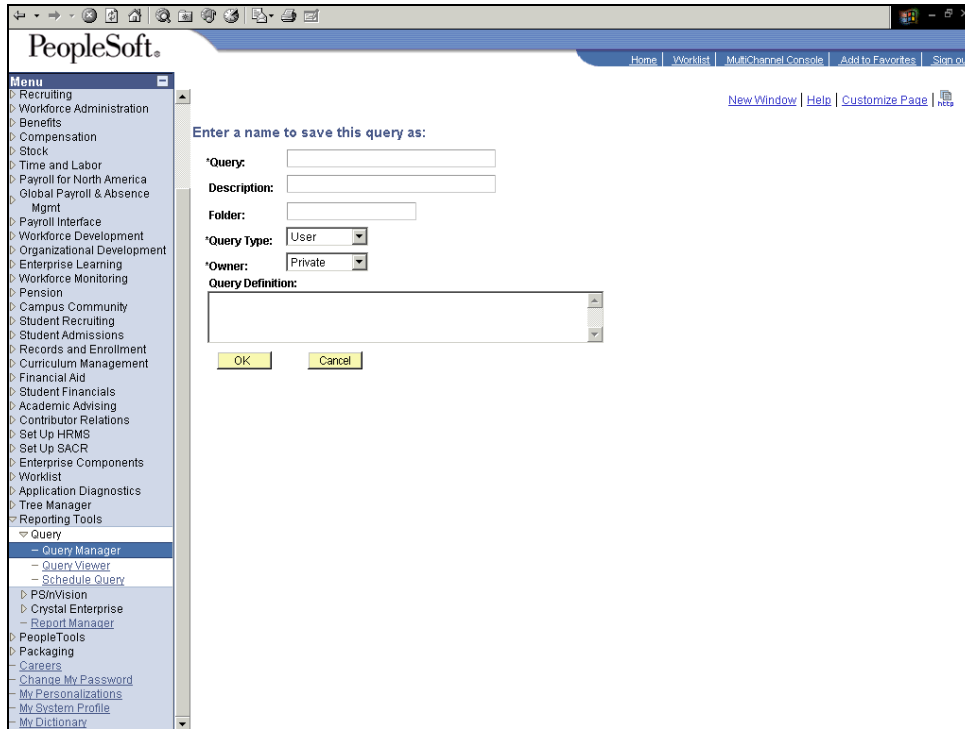
Step	Action
40.	Click in the <b>Heading Text</b> field. <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">A.NET_AWARD_AMT/4</div>
41.	Enter the desired information into the <b>Heading Text</b> field. Enter " <b>Monthly Amount</b> ".
42.	Click the <b>OK</b> button. <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">OK</div>

# Process Document

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Step	Action
43.	Next, save the query. Click the <b>Save As</b> link.
	<a href="#">Save As</a>



Step	Action
44.	Enter the desired information into the <b>*Query</b> field. Enter " <b>MONTH_AMT</b> ".
45.	Click in the <b>Description</b> field. <input type="text"/>
46.	Enter the desired information into the <b>Description</b> field. Enter " <b>Monthly aid amount</b> ".
47.	Standard queries are designated as User queries. Workflow queries are either Process or Role queries. For this example, use the default.
48.	Use the <b>Owner</b> field to specify the access to this query. Private indicates that only the user ID that created the query can open, run, modify, or delete the query. Public indicates that any user with access to the records used by the query can run, modify, or delete the query. For this example, you want to make it a private query.
49.	Click the <b>OK</b> button. <input type="button" value="OK"/>

# Process Document

## Defining Expressions



PeopleSoft

Home | Worklist | MultiChannel Console | Add to Favorites | Sign out

New Window | Help | Customize Page

Records | Query | Expressions | Prompts | **Fields** | Criteria | Having | View SQL | Run

Query Name: MONTH\_AMT      Description: Monthly aid amount

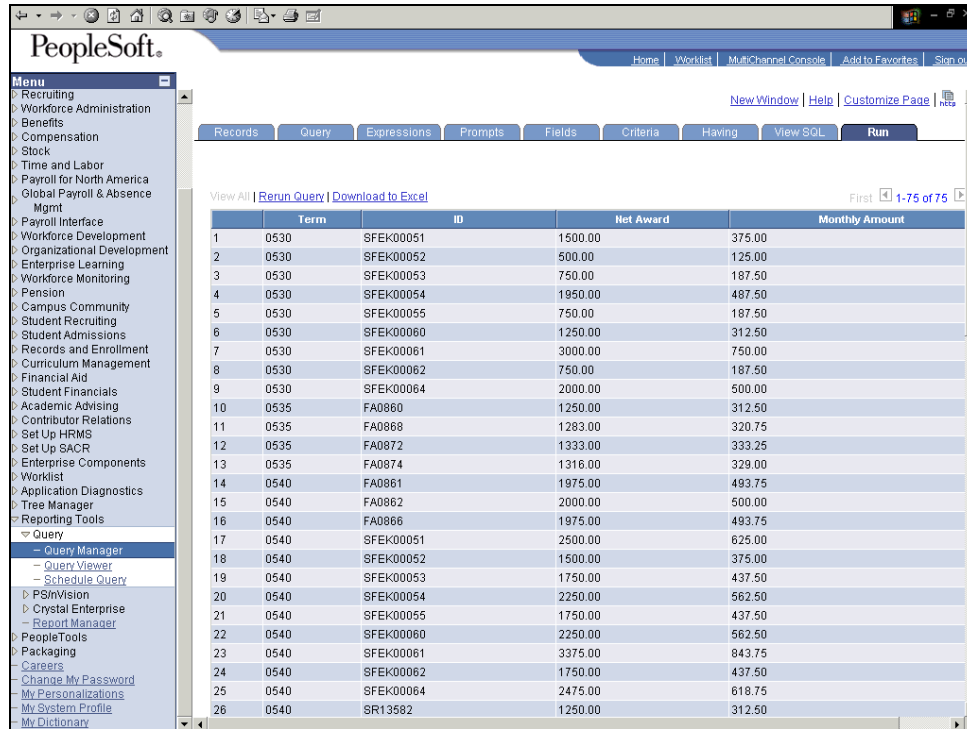
View field properties, or use field as criteria in query statement.      Column Order      Sort Order

Col	Record.FieldName	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.STRM - Term	Char4	1			Term		Edit	
2	A.EMPLID - EmplID	Char11	2			ID		Edit	
3	A.NET_AWARD_AMT - Net Award Amount	SNM11.2				Net Award		Edit	
4	A.NET_AWARD_AMT/4	Char10				Monthly Amount		Edit	

Save      Save As      New Query      Preferences      Properties      New Union      Return to Search

Step	Action
50.	Finally, view the results of the query. Click the <b>Run</b> tab.

**Run**



	Term	ID	Net Award	Monthly Amount
1	0530	SFEK00051	1500.00	375.00
2	0530	SFEK00052	500.00	125.00
3	0530	SFEK00053	750.00	187.50
4	0530	SFEK00054	1950.00	487.50
5	0530	SFEK00055	750.00	187.50
6	0530	SFEK00060	1250.00	312.50
7	0530	SFEK00061	3000.00	750.00
8	0530	SFEK00062	750.00	187.50
9	0530	SFEK00064	2000.00	500.00
10	0535	FA0860	1250.00	312.50
11	0535	FA0868	1283.00	320.75
12	0535	FA0872	1333.00	333.25
13	0535	FA0874	1316.00	329.00
14	0540	FA0861	1975.00	493.75
15	0540	FA0862	2000.00	500.00
16	0540	FA0866	1975.00	493.75
17	0540	SFEK00051	2500.00	625.00
18	0540	SFEK00052	1500.00	375.00
19	0540	SFEK00053	1750.00	437.50
20	0540	SFEK00054	2250.00	562.50
21	0540	SFEK00055	1750.00	437.50
22	0540	SFEK00060	2250.00	562.50
23	0540	SFEK00061	3375.00	843.75
24	0540	SFEK00062	1750.00	437.50
25	0540	SFEK00064	2475.00	618.75
26	0540	SR13582	1250.00	312.50

Step	Action
51.	The results display the net and monthly amount for each student and term combination.
52.	You have successfully defined an expression for a query. <b>End of Procedure.</b>