



TARLETON STATE UNIVERSITY
DAIRY CATTLE CDE
PEDIGREE SCENARIO

You are an Agricultural Science Teacher assisting a new FFA member in purchasing a dairy heifer. Most people told you to visually inspect the heifer for the characteristics that will make her a good show heifer. You have found 4 heifers that will work for the show ring and can purchase any of the 4 for the same price.

Most of the heifer sellers indicate that the TPI (Type Production Index) is a good way to measure genetic merit of an animal and they will pay more for a heifer with a higher TPI. The student that you are assisting will want to sell the heifer after showing her and you would expect to get more for a heifer with a higher TPI.

Rank the four heifer pedigrees based on TPI and remember the reliability (%R) affects the total score.

DO NOT WRITE ON ANY PEDIGREE PAGES



**TARLETON STATE UNIVERSITY
DAIRY CATTLE CDE**

PEDIGREE #1

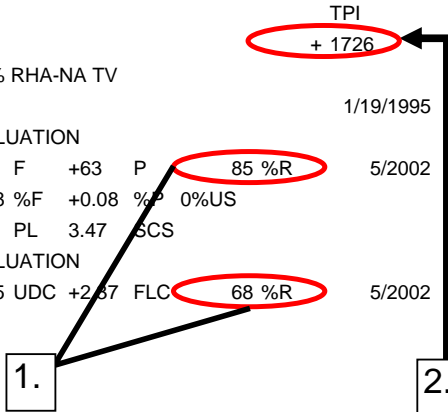
TPI
+1480

MONTY'S BLUE
NLD 159659231 100% RHA-NA TV
1/19/1995

MACE	YIELD	EVALUATION			
PTA	+1400 M	+102 F	+85 P	88 %R	5/2002
PTA		+0.18 %F	+0.10 %P	0%US	
PTA	.600 NM	+1.5 PL	3.5 SCS		
MACE	YIELD	EVALUATION			
PTA	+1.4 T	+1.3 UDC	+2.5 FLC	68 %R	5/2002

DELTA WEBSTER-ET
NLD 159659231 100% RHA-NA TV
1/19/1995

MACE	YIELD	EVALUATION			
PTA	+1444 M	+96 F	+63 P	85 %R	5/2002
PTA		+0.18 %F	+0.08 %P	0%US	
PTA	+569 NM	+1.4 PL	3.47 SCS		
MACE	YIELD	EVALUATION			
PTA	+1.37 T	+1.25 UDC	+2.87 FLC	68 %R	5/2002



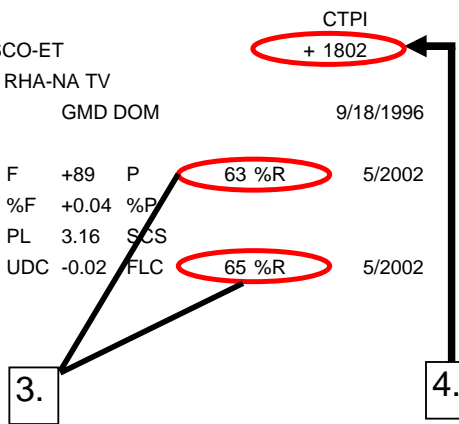
- CTPI
1. Average the reliability for this parent:
 $(0.85 + 0.68)/2 = 0.765$
 2. Multiply the average reliability by the TPI for this parent:
 $1726 \times 0.765 = 1320.39$
 3. Average the reliability for this parent:
 $(0.63 + 0.65)/2 = 0.64$
 4. Multiply the average reliability by the TPI for this parent:
 $1802 \times 0.64 = 1153.28$
 5. Sum the results of steps 2 and 4 to obtain the total score for pedigree 1.
 6. Repeat for each pedigree and place the four pedigrees based on the scores obtained (higher score is more desirable)
 7. NOTE: If a PTPI (preliminary TPI; less reliable) is used instead of a TPI or CTPI, the score for the pedigree with the PTPI should be discounted by 200 points.

NLD 159659231 100% RHA-NA TV
1/19/1995

MACE	YIELD	EVALUATION			
PTA	+1396 M	.68 F	+63 P	87 %R	5/2002
PTA		+0.18 %F	+0.08 %P	0%US	
PTA	.652 NM	+1.0 PL	3.48 SCS		
MACE	YIELD	EVALUATION			
PTA	+1.37 T	+1.52 UDC	+2.5 FLC	88 %R	5/2002

SANDY-VALLEY B-WD FRISCO-ET
USA 17121078 100% RHA-NA TV
2-06 87 VEVVV GMD DOM 9/18/1996

PTA	+2362 M	+111 F	+89 P	63 %R	5/2002
PTA		+0.06 %F	+0.04 %P		
PTA	+693 NM	-0.03 PL	3.16 SCS		
PTA	+1.42 T	+0.59 UDC	-0.02 FLC	65 %R	5/2002



CTPI
+1755

MILK MAKER
USA 17121078 100% RHA-NA TV
2-06 87 VEVVV GMD DOM 9/18/1996

PTA	+1000 M	.90 F	.15 P	57 %R	5/2002
PTA		+0.07 %F	+0.05 %P		
PTA	+633 NM	-0.03 PL	3.5 SCS		
PTA	+1.5 T	+0.60 UDC	+0.2 FLC	55 %R	5/2002

5. $1320.39 + 1153.28 = 2474$

6. See page 6 of this document for the official solution.



**TARLETON STATE UNIVERSITY
DAIRY CATTLE CDE**

PEDIGREE #2

										TPI +1200
										1/19/1995
										CTPI +1888
										9/18/1996
										CTPI +1352
										9/18/1996
										CTPI +1352
										9/18/1996
										CTPI +1352
										9/18/1996

DFA 123WC											
NLD 159659231	100% RHA-NA TV										
MACE	YIELD	EVALUATION									
PTA	+1325 M	+102 F	+85 P		99 %R				5/2002		
PTA		+0.18 %F	+0.10 %P		0%US						
PTA	+652 NM	+1.5 PL	3.5 SCS								
MACE	YIELD	EVALUATION									
PTA	+4 T	+2 UDC	+3.2 FLC		62 %R				5/2002		

										CTPI +1888	
										9/18/1996	
										CTPI +1352	
										9/18/1996	
										CTPI +1352	
										9/18/1996	

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996

										TPI +1252
										1/19/1995
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996
										CTPI +1582
										9/18/1996



**TARLETON STATE UNIVERSITY
DAIRY CATTLE CDE**

PEDIGREE #3

WEBSTERS WINNER		TPI	
NLD 159659231	100% RHA-NA TV	+ 1432	
		1/19/1995	
MACE	YIELD	EVALUATION	
PTA	+1325 M	+65 F	+63 P 89 %R 5/2002
PTA		+0.18 %F	+0.08 %P 0%US
PTA	+625 NM	+1.4 PL	3.47 SCS
MACE	YIELD	EVALUATION	
PTA	+2.5 T	+1.25 UDC	+2.37 FLC 86 %R 5/2002

JUSTIN'S PRIDE 3325		TPI	
NLD 159659231	100% RHA-NA TV	+1325	
		1/19/1995	
MACE	YIELD	EVALUATION	
PTA	+1200 M	+96 F	+80 P 90 %R 5/2002
PTA		+0.18 %F	+0.10 %P 0%US
PTA	+650 NM	+1.5 PL	3.5 SCS
MACE	YIELD	EVALUATION	
PTA	+1.3 T	+1.4 UDC	+1.0 FLC 85 %R 5/2002

WESTERN PRIDE 3325		CTPI	
USA 17121078	100% RHA-NA TV	+1326	
2-06 87 VEVVV		GMD DOM	9/18/1996
PTA	+2300 M	+110 F	+90 P 72 %R 5/2002
PTA		+0.06 %F	+0.05 %P
PTA	.700 NM	-0.03 PL	+3.5 SCS
PTA	+1.5 T	+0.59 UDC	+0.01 FLC 75 %R 5/2002

VALLEY GIRL 3325		CTPI	
USA 17121078	100% RHA-NA TV	+ 1722	
2-06 87 VEVVV		GMD DOM	9/18/1996
PTA	+668 M	+113 F	+92 P 62 %R 5/2002
PTA		+0.06 %F	+0.04 %P
PTA	+325 NM	-0.03 PL	3.215 SCS
PTA	+2.6 T	+0.36 UDC	-0.02 FLC 65 %R 5/2002

DSS 1235		TPI	
NLD 159659231	100% RHA-NA TV	+1100	
		1/19/1995	
MACE	YIELD	EVALUATION	
PTA	+1396 M	.68 F	+63 P 87 %R 5/2002
PTA		+0.18 %F	+0.08 %P 0%US
PTA	.652 NM	+1.0 PL	3.48 SCS
MACE	YIELD	EVALUATION	
PTA	+1.37 T	+1.52 UDC	+2.5 FLC 88 %R 5/2002

JONES 3365		CTPI	
USA 17121078	100% RHA-NA TV	+855	
2-06 87 VEVVV		GMD DOM	9/18/1996
PTA	+1000 M	.90 F	.15 P 58 %R 5/2002
PTA		+0.07 %F	+0.05 %P
PTA	+633 NM	-0.03 PL	3.5 SCS
PTA	+1.5 T	+0.60 UDC	+0.02 FLC 66 %R 5/2002



TARLETON STATE UNIVERSITY
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PEDIGREE #4

										TPI
										+1500
										1/19/1995
										MILLER 366
										NLD 159659231 100% RHA-NA TV
										MACE YIELD EVALUATION
										PTA +1400 M +102 F +85 P 90 %R 5/2002
										PTA +0.18 %F +0.10 %P 0%US
										PTA .600 NM +1.5 PL 3.5 SCS
										MACE YIELD EVALUATION
										PTA +1.4 T +1.3 UDC +2.5 FLC 69 %R 5/2002

										CTPI
										+1200
										GOLDEN GIRL 985
										USA 17121078 100% RHA-NA TV
										2-06 87 VEVVV GMD DOM 9/18/1996
										PTA +2300 M +110 F +90 P 75 %R 5/2002
										PTA +0.06 %F +0.05 %P
										PTA .700 NM -0.03 PL +3.5 SCS
										PTA +1.5 T +0.59 UDC +.001 FLC 80 %R 5/2002

										TPI
										+999
										1/19/1995
										JKL 658
										NLD 159659231 100% RHA-NA TV
										MACE YIELD EVALUATION
										PTA +1396 M .68 F +63 P 87 %R 5/2002
										PTA +0.18 %F +0.08 %P 0%US
										PTA .652 NM +1.0 PL 3.48 SCS
										MACE YIELD EVALUATION
										PTA +1.37 T +1.52 UDC +2.5 FLC 88 %R 5/2002

										CTPI
										+1011
										MM 658
										USA 17121078 100% RHA-NA TV
										2-06 87 VEVVV GMD DOM 9/18/1996
										PTA +1120 M +90 F +.15 P 57 %R 5/2002
										PTA +0.07 %F +0.05 %P
										PTA +634 NM -0.03 PL 3.5 SCS
										PTA +1.4 T +0.60 UDC +.02 FLC 55 %R 5/2002

										TPI
										+1504
										1/19/1995
										PURPLE PRIDE 1655
										NLD 159659231 100% RHA-NA TV
										MACE YIELD EVALUATION
										PTA +1352 M +90 F +65 P 98 %R 5/2002
										PTA +0.18 %F +0.08 %P 0%US
										PTA +596 NM +1.4 PL 3.47 SCS
										MACE YIELD EVALUATION
										PTA +1.4 T +1.3 UDC +2.37 FLC 96 %R 5/2002

										CTPI
										+1760
										9/18/1996
										BCD 3365
										USA 17121078 100% RHA-NA TV
										2-06 87 VEVVV GMD DOM 9/18/1996
										PTA +1325 M +123 F +90 P 54 %R 5/2002
										PTA +0.06 %F +0.04 %P
										PTA +667 NM -0.03 PL 3.16 SCS
										PTA +1.54 T +0.59 UDC +.01 FLC 59 %R 5/2002



TARLETON STATE UNIVERSITY
DAIRY CATTLE CDE
PEDIGREE SOLUTION

	<u>AVG %R</u>	<u>TPI</u>	<u>POINTS</u>	<u>RANK</u>	<u>PLACING</u>
PEDIGREE #1	76.5 64.0	1726 1802	1320 1153 <hr/> 2474	<hr/> 1	1 - 4 - 3 - 2
PEDIGREE #2	78.0 62.0	1583 1582	1235 981 <hr/> 2216	<hr/> 4	
PEDIGREE #3	87.5 63.5	1432 1722	1253 1093 <hr/> 2346	<hr/> 3	
PEDIGREE #4	97.0 56.5	1504 1760	1459 994 <hr/> 2453	<hr/> 2	