

DATA EVALUATION RECORD

1. **CHEMICAL:** Flumetsulam.
Shaughnessey No. 129016.
2. **TEST MATERIAL:** DE-498 herbicide; N-(2,6-difluorophenyl)-5-methyl-1,2,4-triazolo[1,5a]pyrimidine-2-sulfonamide; CAS No. 98967-40-9; ID No. AGR 240043; 99.6% active ingredient (a.i.); a light tan powder.
3. **STUDY TYPE:** 72-4. Freshwater Fish, Early Life-Stage, Flow-Through Toxicity Test. Species Tested: Fathead Minnow (*Pimephales promelas*).
4. **CITATION:** Weinberg, J.T., S.J. Gorzinski, D.L. Rick, M.D. Martin, and C.H. Richardson. 1992. Evaluation of the Toxicity of DE-498 Herbicide to Early Life Stages of the Fathead Minnow, *Pimephales promelas* Rafinesque. Conducted by The Dow Chemical Company, The Environmental Toxicology and Chemistry Research Laboratory, Midland, MI. Study ID No. DECO-ES-2475. Submitted by DowElanco, Indianapolis, IN. EPA MRID No. 424651-01.

5. **REVIEWED BY:**

Charles G. Nace Jr., M.S.
Associate Scientist
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Signature: *Charles G Nace Jr.*
Date: 11/16/92

6. **APPROVED BY:**

Louis M. Rifici, M.S.
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Signature: *Louis M Rifici*
Date: 11/16/92

Henry T. Craven, M.S.
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Signature: *Michael Dary*
Date: 12-4-92
Dary 12-10-92
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7. **CONCLUSIONS:** This study is scientifically sound and meets the guideline requirements for a flow-through, early life-stage toxicity test for fathead minnows. The no-observed-effect concentration (NOEC) was 197 mg/l (mean measured). An MATC could not be determined due to no significant effects at any level tested. The results of this study classify DE-498 as practically non-toxic to fathead minnows.

8. RECOMMENDATIONS: N/A.

9. BACKGROUND:

10. DISCUSSION OF INDIVIDUAL TESTS: N/A.

11. MATERIALS AND METHODS:

A. Test Animals: Fathead minnow embryos less than 24-hours old were obtained from in-house cultures. Embryos were removed from the spawning substrates and microscopically examined. Abnormal and fungus infected embryos were discarded. Embryos were <24-hours old at test initiation.

B. Test System: An intermittent-flow proportional diluter with a dilution factor of approximately 60% was used. The flow of test solution from the mixing/splitting chambers into the test chambers provided 6 volume additions per day.

The test chambers were held in a circulating water bath with the temperature controller set to maintain $25 \pm 2^\circ\text{C}$. A 16-hour light/8-hour dark photoperiod was provided using cool-white fluorescent lighting on an automatic timer, with an average intensity of 1793 lux. Each glass test chamber measured 30 x 15 x 15 cm, was covered, and had a nylon-screen covered drain (test solution volume of 3.7 l).

The embryos were incubated in circular glass cups with 360- μm stainless-steel screen bottoms. Each cup was suspended in a cylindrical glass incubation chamber supported on glass beads. The flow from the diluter was directed into the incubation cups to produce an intermittent flow of water around the embryos during incubation. Concentrated stock solutions (5,000 mg/l) were prepared in water every 24 to 36 hours. The stock was buffered to a pH of 8.0-8.5 using 1M Na_2CO_3 .

The dilution water was obtained from the upper Saginaw Bay of Lake Huron. It was limed and flocculated with ferric chloride by the City of Midland Water Treatment Plant. The water was sand-filtered, pH-adjusted with CO_2 , carbon-filtered, and UV-irradiated before use in the laboratory. During the test, the water had an alkalinity of 44-95 mg/l as CaCO_3 , a hardness of 73-79 mg/l as CaCO_3 , and a conductivity of 170-245 $\mu\text{mhos/cm}$.

- C. **Dosage:** Thirty-two-day flow-through test. Five nominal concentrations of 26, 43, 72, 120, and 200 mg DE-498/l, and a dilution water control were used.
- D. **Design:** Twenty-five fertilized embryos were impartially distributed (in groups of 5) to each of the egg cups. The cups were randomly assigned to the test aquaria, one cup per aquarium, four aquaria per treatment, for a total of 100 embryos per treatment.

The embryos were observed daily for five days and dead embryos were removed and counted. Dead or deformed larvae were subtracted from the total number hatched to determine the number of normal larvae at hatch. The percent of embryos that hatched and the day to mean hatch for each concentration were recorded. On Day 5, the surviving larvae were culled down to 20 larvae per replicate (80 larvae per treatment) by indiscriminately removing larvae from each incubation cup. Observations of mortality and developmental abnormalities were made at least once weekly. Photographs of each replicate were taken on Day 14 for larval count confirmation. The test continued for 28 days post day-to-mean hatch of the controls (32 days total). At termination, the weight (to the nearest 0.01 g) and standard length (to the nearest 1 mm) of the surviving fish were determined.

Larvae were fed a diet of newly-hatched brine shrimp (<24-h old) three times daily on days 2-5 after first hatch and twice daily throughout the remainder of the test. The fish were not fed during the last 24 hours of the test.

The hardness, alkalinity, conductivity, and light intensity were measured on days 0 and 4 and weekly thereafter in the control and one exposure concentration. The dissolved oxygen concentration (DO), pH, and temperature were recorded on days 0 and 4 and weekly thereafter in all test chambers. The temperature of one representative test chamber was also monitored continuously.

Samples of the test solutions were taken on test days 0, 4, 11, 18, 25, and 32 for determination of the concentration of DE-498 by high performance liquid chromatography. The samples from each aquarium were either analyzed separately or as composites by concentration.

E. **Statistics:** The percent of embryos hatched, normal larvae at hatch, survival and mean growth data (length and weight) were evaluated statistically. The day-to-mean hatch was determined by visual inspection of the embryo hatchability data. Comparison of treatment responses to the control were made using Dunnett's or Steel's test. Conclusions of statistical significance were made when $p \leq 0.05$.

12. **REPORTED RESULTS:** The mean measured concentrations for the 32-day test were 26.4, 47.7, 80.6, 128, and 197 mg/l (Table 3, attached). Measured concentrations were fairly consistent between sampling days and mean measured concentrations ranged from 99 to 112% of nominal values.

The mean day to hatch was day 3 for all replicates of all concentrations (Table 7, attached). There was no difference between the exposure and control larvae for the percent hatched, percent normal at hatch, and percent survival. Larval growth (both length and weight) was not affected at any concentration tested (Table 8, attached).

Based on no significant treatment effects, the no-observed-effects concentration (NOEC) for all endpoints was 197 mg/l.

The DO, pH, and temperature during the test are summarized in Table 5 (attached). The ranges of hardness, alkalinity, and conductivity in the test solutions were 73 to 79 mg/l as CaCO_3 , 44 to 95 mg/l as CaCO_3 , and 170 to 245 $\mu\text{mhos/cm}$, respectively.

13. **STUDY AUTHOR'S CONCLUSIONS/QUALITY ASSURANCE MEASURES:**

The authors made no conclusions.

Quality Assurance and good laboratory practice compliance statements were included in the report, indicating that the study was conducted in accordance with EPA Good Laboratory Practice Standards set forth in 40 CFR Part 160.

14. **REVIEWER'S DISCUSSION AND INTERPRETATION OF STUDY RESULTS:**

A. **Test Procedure:** The test procedures were generally in accordance with protocols recommended by the guidelines, but deviated from the SEP or ASTM (1987) as follows:

Length was measured to the nearest 1 mm; 0.5 mm is recommended.

The light intensity averaged 1783 lux. The recommended light intensity is 400-800 lux.

No chemical characterization of the brine shrimp used as food was included in the report.

B. Statistical Analysis: The number of days to hatch, the number hatched, the number of normal larvae hatched, and the larval survival data in the exposure concentrations (Tables 6 and 7, attached) were visibly similar to those of the control and were not statistically analyzed by the reviewer. Larval fish weight and length were analyzed using two-way ANOVA and Bonferroni's test (Systat Version 5.0). There was a significant effect in length and weight in group 4 and 3, respectively. These slight decreases in length and weight were not considered to be treatment effects due to no effects being seen at higher levels. All other levels had no significant effects (see attached printouts 9-17).

C. Discussion/Results: This test did not meet the requirements of achieving a maximum-acceptable-toxicant concentration (MATC), however, the highest level tested was greater than 100 mg/l (197 mg/l), which is above the concentration classifying a compound as practically non-toxic. Therefore, this study is scientifically sound and does meet the guideline requirements for a flow-through, early life-stage toxicity test for fathead minnows. The no-observed-effect concentration (NOEC) was 197 mg/l (mean measured). An MATC could not be determined due to no significant effects at any level tested. The results of this study classify DE-498 as practically non-toxic to fathead minnows.

D. Adequacy of the Study:

(1) Classification: Core.

(2) Rationale: N/A.

(3) Repairability: N/A.

15. COMPLETION OF ONE-LINER FOR STUDY: Yes, 10/28/92.

RIN 7767-93

REVIEWS FOR BROADSTRIKE
(FLUMETSULAM 129016)

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Pages 6 through 13 are not included.

The material not included contains the following type of information:

- Identity of product inert ingredients.
- Identity of product impurities.
- Description of the product manufacturing process.
- Description of quality control procedures.
- Identity of the source of product ingredients.
- Sales or other commercial/financial information.
- A draft product label.
- The product confidential statement of formula.
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		WEIGHT
CONSTANT		75.7608
TRT	0.0000	-3.4819
TRT	1.0000	5.1155
TRT	2.0000	6.8267
TRT	3.0000	-9.0018
TRT	4.0000	-1.8404
REP	1.0000	1.7405
REP	2.0000	2.1101
REP	3.0000	-3.8744
TRT	0.0000	
REP	1.0000	15.3490
TRT	0.0000	
REP	2.0000	-12.5891
TRT	0.0000	
REP	3.0000	4.7534
TRT	1.0000	
REP	1.0000	-2.3668
TRT	1.0000	
REP	2.0000	6.1188
TRT	1.0000	
REP	3.0000	-10.0019
TRT	2.0000	
REP	1.0000	-2.5280
TRT	2.0000	
REP	2.0000	1.1024
TRT	2.0000	
REP	3.0000	-2.3131
TRT	3.0000	
REP	1.0000	-1.2495
TRT	3.0000	
REP	2.0000	5.5197
TRT	3.0000	
REP	3.0000	5.0627
TRT	4.0000	
REP	1.0000	-4.1109
TRT	4.0000	
REP	2.0000	4.4695

TRT 4.0000
 REP 3.0000 -2.7828
 ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
TRT	13659.2311	5	2731.8462	5.7050	0.0000
REP	2628.1845	3	876.0615	1.8295	0.1410
TRT*REP	18937.8867	15	1262.5258	2.6366	0.0008
ERROR	213090.4541	445	478.8550		

LEAST SQUARES MEANS.

			MEAN	SD	(N)	RSD(%)
TRT	=	0.0000	72.2789	22.1257	77	30.6
TRT	=	1.0000	80.8763	23.0061	79	
TRT	=	2.0000	82.5875	21.2976	80	
TRT	=	3.0000	66.7591	24.5687	77	
TRT	=	4.0000	73.9204	20.9929	78	
TRT	=	5.0000	78.1428	22.9328	78	
REP	=	1.0000	77.5013	23.6417	118	
REP	=	2.0000	77.8710	27.6321	116	
REP	=	3.0000	71.8864	17.6248	117	
REP	=	4.0000	75.7846	22.0402	118	
TRT	=	0.0000				RSD
REP	=	1.0000	89.3684	28.0222	19	31.4
TRT	=	0.0000				
REP	=	2.0000	61.8000	18.2630	20	29.6
TRT	=	0.0000				
REP	=	3.0000	73.1579	14.6866	19	20.1
TRT	=	0.0000				
REP	=	4.0000	64.7895	14.9576	19	23.1
TRT	=	1.0000				
REP	=	1.0000	80.2500	25.7986	20	
TRT	=	1.0000				
REP	=	2.0000	89.1053	27.4609	19	
TRT	=	1.0000				
REP	=	3.0000	67.0000	15.2661	20	
TRT	=	1.0000				
REP	=	4.0000	87.1500	15.7356	20	
TRT	=	2.0000				
REP	=	1.0000	81.8000	21.4245	20	

TRT	=	2.0000			
REP	=	2.0000	85.8000	26.6825	20

TRT	=	2.0000			
REP	=	3.0000	76.4000	17.2822	20
TRT	=	2.0000			
REP	=	4.0000	86.3500	18.6978	20
TRT	=	3.0000			
REP	=	1.0000	67.2500	15.7676	20
TRT	=	3.0000			
REP	=	2.0000	74.3889	38.2594	18
TRT	=	3.0000			
REP	=	3.0000	67.9474	20.3182	19
TRT	=	3.0000			
REP	=	4.0000	57.4500	17.8103	20
TRT	=	4.0000			
REP	=	1.0000	71.5500	18.3288	20
TRT	=	4.0000			
REP	=	2.0000	80.5000	24.0383	20
TRT	=	4.0000			
REP	=	3.0000	67.2632	14.4677	19
TRT	=	4.0000			
REP	=	4.0000	76.3684	24.5746	19
TRT	=	5.0000			
REP	=	1.0000	74.7895	26.5007	19
TRT	=	5.0000			
REP	=	2.0000	75.6316	22.6476	19
TRT	=	5.0000			
REP	=	3.0000	79.5500	20.5950	20
TRT	=	5.0000			
REP	=	4.0000	82.6000	22.7027	20

MATRIX OF PAIRWISE MEAN DIFFERENCES:

	1	2	3	4	5	6
1	0.0000					
2	8.5974	0.0000				
3	10.3086	1.7112	0.0000			
4	-5.5199	-14.1173	-15.8284	0.0000		
5	1.6414	-6.9559	-8.6671	7.1613	0.0000	
6	5.8638	-2.7336	-4.4447	11.3837	4.2224	0.0000

BONFERRONI ADJUSTMENT. — *Weight*
 MATRIX OF PAIRWISE COMPARISON PROBABILITIES:

	1	2	3	4	5	6
1	1.0000					
2	0.2184	1.0000				
3	0.0501	1.0000	1.0000			
4	1.0000	0.0010	0.0001	1.0000		
5	1.0000	0.7066	0.1978	0.6354	1.0000	
6	1.0000	1.0000	1.0000	0.0195	1.0000	1.0000

LENGTH		
CONSTANT		16.4338
TRT	0.0000	-0.0358
TRT	1.0000	0.3853
TRT	2.0000	0.3912
TRT	3.0000	-0.7738
TRT	4.0000	-0.0522
REP	1.0000	0.0645
REP	2.0000	0.0728
REP	3.0000	-0.2421
TRT	0.0000	
REP	1.0000	0.9586
TRT	0.0000	
REP	2.0000	-0.7209
TRT	0.0000	
REP	3.0000	0.2651
TRT	1.0000	
REP	1.0000	-0.3835
TRT	1.0000	
REP	2.0000	0.6344
TRT	1.0000	
REP	3.0000	-0.6770
TRT	2.0000	
REP	1.0000	-0.2895
TRT	2.0000	
REP	2.0000	-0.1478
TRT	2.0000	
REP	3.0000	0.0671
TRT	3.0000	
REP	1.0000	0.1756

TRT	3.0000	
REP	2.0000	0.3228
TRT	3.0000	
REP	3.0000	0.2664
TRT	4.0000	
REP	1.0000	-0.2460
TRT	4.0000	
REP	2.0000	0.3456
TRT	4.0000	
REP	3.0000	-0.2447

ANALYSIS OF VARIANCE

SOURCE	SUM-OF-SQUARES	DF	MEAN-SQUARE	F-RATIO	P
TRT	70.8573	5	14.1715	6.9258	0.0000
REP	9.2543	3	3.0848	1.5076	0.2119
TRT*REP	91.6317	15	6.1088	2.9854	0.0001
ERROR	910.5576	445	2.0462		

LEAST SQUARES MEANS.

			MEAN	SD	(N)
TRT	=	0.0000	16.3980	1.4793	77
TRT	=	1.0000	16.8191	1.5113	79
TRT	=	2.0000	16.8250	1.3574	80
TRT	=	3.0000	15.6599	1.6762	77
TRT	=	4.0000	16.3816	1.3313	78
TRT	=	5.0000	16.5191	1.4922	78
REP	=	1.0000	16.4982	1.5289	118
REP	=	2.0000	16.5066	1.7067	116
REP	=	3.0000	16.1917	1.2611	117
REP	=	4.0000	16.5386	1.5505	118
TRT	=	0.0000			
REP	=	1.0000	17.4211	1.4650	19
TRT	=	0.0000			
REP	=	2.0000	15.7500	1.6182	20
TRT	=	0.0000			
REP	=	3.0000	16.4211	1.1698	19
TRT	=	0.0000			
REP	=	4.0000	16.0000	1.1055	19

TRT	=	1.0000			
REP	=	1.0000	16.5000	1.8209	20
TRT	=	1.0000			
REP	=	2.0000	17.5263	1.4286	19
TRT	=	1.0000			
REP	=	3.0000	15.9000	1.0712	20
TRT	=	1.0000			
REP	=	4.0000	17.3500	1.0894	20
TRT	=	2.0000			
REP	=	1.0000	16.6000	1.3139	20
TRT	=	2.0000			
REP	=	2.0000	16.7500	1.5853	20
TRT	=	2.0000			
REP	=	3.0000	16.6500	1.1367	20
TRT	=	2.0000			
REP	=	4.0000	17.3000	1.3416	20
TRT	=	3.0000			
REP	=	1.0000	15.9000	1.3727	20
TRT	=	3.0000			
REP	=	2.0000	16.0556	2.0996	18
TRT	=	3.0000			
REP	=	3.0000	15.6842	1.5653	19
TRT	=	3.0000			
REP	=	4.0000	15.0000	1.5560	20
TRT	=	4.0000			
REP	=	1.0000	16.2000	1.2397	20
TRT	=	4.0000			
REP	=	2.0000	16.8000	1.5424	20
TRT	=	4.0000			
REP	=	3.0000	15.8947	1.1002	19
TRT	=	4.0000			
REP	=	4.0000	16.6316	1.3000	19
TRT	=	5.0000			
REP	=	1.0000	16.3684	1.6401	19
TRT	=	5.0000			
REP	=	2.0000	16.1579	1.5005	19
TRT	=	5.0000			
REP	=	3.0000	16.6000	1.2732	20
TRT	=	5.0000			
REP	=	4.0000	16.9500	1.5381	20

MATRIX OF PAIRWISE MEAN DIFFERENCES:

	1	2	3	4	5	6
1	0.0000					
2	0.4211	0.0000				
3	0.4270	0.0059	0.0000			
4	-0.7381	-1.1591	-1.1651	0.0000		
5	-0.0164	-0.4375	-0.4434	0.7216	0.0000	
6	0.1211	-0.3000	-0.3059	0.8591	0.1375	0.0000

BONFERRONI ADJUSTMENT. — *Length*
 MATRIX OF PAIRWISE COMPARISON PROBABILITIES:

	1	2	3	4	5	6
1	1.0000					
2	1.0000	1.0000				
3	0.9333	1.0000	1.0000			
4	<u>0.0221</u>	0.0000	0.0000	1.0000		
5	1.0000	0.8410	0.7811	0.0272	1.0000	
6	1.0000	1.0000	1.0000	0.0032	1.0000	1.0000

SUMMARY STATISTICS FOR REP

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 0.0386 DF= 5 PROBABILITY = 1.0000

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROBABILITY
BETWEEN GROUPS	0.1117	5	0.0223	0.0176	0.9999
WITHIN GROUPS	589.1378	463	1.2724		

SUMMARY STATISTICS FOR WEIGHT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 2.5789 DF= 5 PROBABILITY = 0.7646

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROBABILITY
BETWEEN GROUPS	13978.9933	5	2795.7987	5.5171	0.0001
WITHIN GROUPS	234627.0493	463	506.7539		

SUMMARY STATISTICS FOR LENGTH

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 5.3439 DF= 5 PROBABILITY = 0.3754

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROBABILITY
BETWEEN GROUPS	71.8102	5	14.3620	6.5743	0.0000

WITHIN GROUPS 1011.4563 463 2.1846

KOLMOGOROV-SMIRNOV ONE SAMPLE TEST USING STANDARD NORMAL DISTRIBUTION

VARIABLE	N-OF-CASES	MAXDIF	PROBABILITY (2-TAIL)
REP	469.0000	0.8413	0.0000
LENGTH	469.0000	1.0000	0.0000
WEIGHT	469.0000	1.0000	0.0000

Flumetsulam : Fathead minnow (*Pimephales promelas*)

TRT 1 = DILUTION WATER CONTROL

TRT 2 = 26.4 mg/l

TRT 3 = 47.7 mg/l

TRT 4 = 80.6 mg/l

TRT 5 = 128 mg/l

TRT 6 = 197 mg/l

		TRT	REP	LENGTH	WEIGHT
CASE	1	0.0000	1.0000	17.0000	83.0000
CASE	2	0.0000	1.0000	17.0000	53.0000
CASE	3	0.0000	1.0000	17.0000	68.0000
CASE	4	0.0000	1.0000	16.0000	66.0000
CASE	5	0.0000	1.0000	16.0000	77.0000
CASE	6	0.0000	1.0000	17.0000	75.0000
CASE	7	0.0000	1.0000	15.0000	57.0000
CASE	8	0.0000	1.0000	19.0000	117.0000
CASE	9	0.0000	1.0000	17.0000	71.0000
CASE	10	0.0000	1.0000	17.0000	84.0000
CASE	11	0.0000	1.0000	19.0000	114.0000
CASE	12	0.0000	1.0000	17.0000	92.0000
CASE	13	0.0000	1.0000	17.0000	84.0000
CASE	14	0.0000	1.0000	17.0000	80.0000
CASE	15	0.0000	1.0000	17.0000	89.0000
CASE	16	0.0000	1.0000	18.0000	98.0000
CASE	17	0.0000	1.0000	18.0000	103.0000
CASE	18	0.0000	1.0000	18.0000	109.0000
CASE	19	0.0000	1.0000	22.0000	178.0000
CASE	20	0.0000	2.0000	18.0000	88.0000
CASE	21	0.0000	2.0000	17.0000	75.0000
CASE	22	0.0000	2.0000	15.0000	45.0000
CASE	23	0.0000	2.0000	15.0000	50.0000
CASE	24	0.0000	2.0000	15.0000	56.0000
CASE	25	0.0000	2.0000	16.0000	58.0000
CASE	26	0.0000	2.0000	17.0000	72.0000
CASE	27	0.0000	2.0000	17.0000	68.0000
CASE	28	0.0000	2.0000	14.0000	38.0000
CASE	29	0.0000	2.0000	14.0000	48.0000
CASE	30	0.0000	2.0000	16.0000	65.0000
CASE	31	0.0000	2.0000	16.0000	68.0000
CASE	32	0.0000	2.0000	11.0000	22.0000
CASE	33	0.0000	2.0000	17.0000	88.0000
CASE	34	0.0000	2.0000	15.0000	51.0000
CASE	35	0.0000	2.0000	17.0000	70.0000
CASE	36	0.0000	2.0000	15.0000	44.0000
CASE	37	0.0000	2.0000	16.0000	68.0000
CASE	38	0.0000	2.0000	16.0000	65.0000
CASE	39	0.0000	2.0000	18.0000	97.0000
CASE	40	0.0000	3.0000	18.0000	99.0000
CASE	41	0.0000	3.0000	17.0000	93.0000
CASE	42	0.0000	3.0000	14.0000	49.0000
CASE	43	0.0000	3.0000	18.0000	84.0000
CASE	44	0.0000	3.0000	14.0000	46.0000
CASE	45	0.0000	3.0000	17.0000	80.0000
CASE	46	0.0000	3.0000	15.0000	50.0000

CASE	47	0.0000	3.0000	16.0000	66.0000
CASE	48	0.0000	3.0000	15.0000	66.0000
CASE	49	0.0000	3.0000	17.0000	87.0000
CASE	50	0.0000	3.0000	16.0000	57.0000
CASE	51	0.0000	3.0000	17.0000	81.0000
CASE	52	0.0000	3.0000	17.0000	72.0000
CASE	53	0.0000	3.0000	16.0000	73.0000
CASE	54	0.0000	3.0000	17.0000	83.0000
CASE	55	0.0000	3.0000	17.0000	81.0000
CASE	56	0.0000	3.0000	17.0000	75.0000
CASE	57	0.0000	3.0000	17.0000	71.0000
CASE	58	0.0000	3.0000	17.0000	77.0000
CASE	59	0.0000	4.0000	16.0000	63.0000
CASE	60	0.0000	4.0000	17.0000	74.0000
CASE	61	0.0000	4.0000	15.0000	48.0000
CASE	62	0.0000	4.0000	17.0000	78.0000
CASE	63	0.0000	4.0000	16.0000	62.0000
CASE	64	0.0000	4.0000	16.0000	67.0000
CASE	65	0.0000	4.0000	16.0000	56.0000
CASE	66	0.0000	4.0000	18.0000	86.0000
CASE	67	0.0000	4.0000	14.0000	42.0000
CASE	68	0.0000	4.0000	16.0000	82.0000
CASE	69	0.0000	4.0000	17.0000	68.0000
CASE	70	0.0000	4.0000	15.0000	50.0000
CASE	71	0.0000	4.0000	16.0000	55.0000
CASE	72	0.0000	4.0000	15.0000	54.0000
CASE	73	0.0000	4.0000	15.0000	56.0000
CASE	74	0.0000	4.0000	17.0000	90.0000
CASE	75	0.0000	4.0000	17.0000	84.0000
CASE	76	0.0000	4.0000	17.0000	74.0000
CASE	77	0.0000	4.0000	14.0000	42.0000
CASE	78	1.0000	1.0000	13.0000	39.0000
CASE	79	1.0000	1.0000	15.0000	61.0000
CASE	80	1.0000	1.0000	13.0000	41.0000
CASE	81	1.0000	1.0000	16.0000	77.0000
CASE	82	1.0000	1.0000	17.0000	86.0000
CASE	83	1.0000	1.0000	17.0000	90.0000
CASE	84	1.0000	1.0000	19.0000	113.0000
CASE	85	1.0000	1.0000	17.0000	88.0000
CASE	86	1.0000	1.0000	17.0000	86.0000
CASE	87	1.0000	1.0000	15.0000	53.0000
CASE	88	1.0000	1.0000	19.0000	146.0000
CASE	89	1.0000	1.0000	18.0000	91.0000
CASE	90	1.0000	1.0000	15.0000	55.0000
CASE	91	1.0000	1.0000	18.0000	88.0000
CASE	92	1.0000	1.0000	18.0000	103.0000
CASE	93	1.0000	1.0000	17.0000	84.0000
CASE	94	1.0000	1.0000	14.0000	53.0000
CASE	95	1.0000	1.0000	18.0000	96.0000
CASE	96	1.0000	1.0000	16.0000	65.0000
CASE	97	1.0000	1.0000	18.0000	90.0000
CASE	98	1.0000	2.0000	17.0000	74.0000
CASE	99	1.0000	2.0000	17.0000	79.0000
CASE	100	1.0000	2.0000	21.0000	164.0000
CASE	101	1.0000	2.0000	18.0000	104.0000
CASE	102	1.0000	2.0000	17.0000	68.0000
CASE	103	1.0000	2.0000	18.0000	96.0000
CASE	104	1.0000	2.0000	20.0000	130.0000
CASE	105	1.0000	2.0000	16.0000	60.0000
CASE	106	1.0000	2.0000	17.0000	72.0000
CASE	107	1.0000	2.0000	17.0000	91.0000
CASE	108	1.0000	2.0000	16.0000	71.0000

CASE	109	1.0000	2.0000	16.0000	58.0000
CASE	110	1.0000	2.0000	17.0000	86.0000
CASE	111	1.0000	2.0000	18.0000	95.0000
CASE	112	1.0000	2.0000	17.0000	78.0000
CASE	113	1.0000	2.0000	18.0000	92.0000
CASE	114	1.0000	2.0000	20.0000	133.0000
CASE	115	1.0000	2.0000	16.0000	66.0000
CASE	116	1.0000	2.0000	17.0000	76.0000
CASE	117	1.0000	3.0000	15.0000	48.0000
CASE	118	1.0000	3.0000	14.0000	47.0000
CASE	119	1.0000	3.0000	18.0000	90.0000
CASE	120	1.0000	3.0000	17.0000	85.0000
CASE	121	1.0000	3.0000	16.0000	74.0000
CASE	122	1.0000	3.0000	16.0000	67.0000
CASE	123	1.0000	3.0000	15.0000	63.0000
CASE	124	1.0000	3.0000	16.0000	72.0000
CASE	125	1.0000	3.0000	17.0000	83.0000
CASE	126	1.0000	3.0000	15.0000	46.0000
CASE	127	1.0000	3.0000	15.0000	60.0000
CASE	128	1.0000	3.0000	17.0000	79.0000
CASE	129	1.0000	3.0000	16.0000	65.0000
CASE	130	1.0000	3.0000	16.0000	66.0000
CASE	131	1.0000	3.0000	18.0000	101.0000
CASE	132	1.0000	3.0000	16.0000	69.0000
CASE	133	1.0000	3.0000	15.0000	55.0000
CASE	134	1.0000	3.0000	15.0000	45.0000
CASE	135	1.0000	3.0000	15.0000	62.0000
CASE	136	1.0000	3.0000	16.0000	63.0000
CASE	137	1.0000	4.0000	17.0000	90.0000
CASE	138	1.0000	4.0000	18.0000	91.0000
CASE	139	1.0000	4.0000	17.0000	81.0000
CASE	140	1.0000	4.0000	18.0000	103.0000
CASE	141	1.0000	4.0000	16.0000	63.0000
CASE	142	1.0000	4.0000	18.0000	100.0000
CASE	143	1.0000	4.0000	17.0000	83.0000
CASE	144	1.0000	4.0000	17.0000	83.0000
CASE	145	1.0000	4.0000	17.0000	82.0000
CASE	146	1.0000	4.0000	18.0000	95.0000
CASE	147	1.0000	4.0000	19.0000	111.0000
CASE	148	1.0000	4.0000	14.0000	46.0000
CASE	149	1.0000	4.0000	17.0000	68.0000
CASE	150	1.0000	4.0000	18.0000	84.0000
CASE	151	1.0000	4.0000	17.0000	86.0000
CASE	152	1.0000	4.0000	17.0000	84.0000
CASE	153	1.0000	4.0000	18.0000	101.0000
CASE	154	1.0000	4.0000	19.0000	113.0000
CASE	155	1.0000	4.0000	17.0000	90.0000
CASE	156	1.0000	4.0000	18.0000	89.0000
CASE	157	2.0000	1.0000	15.0000	62.0000
CASE	158	2.0000	1.0000	19.0000	135.0000
CASE	159	2.0000	1.0000	17.0000	92.0000
CASE	160	2.0000	1.0000	17.0000	78.0000
CASE	161	2.0000	1.0000	18.0000	101.0000
CASE	162	2.0000	1.0000	16.0000	66.0000
CASE	163	2.0000	1.0000	16.0000	74.0000
CASE	164	2.0000	1.0000	17.0000	95.0000
CASE	165	2.0000	1.0000	16.0000	80.0000
CASE	166	2.0000	1.0000	17.0000	87.0000
CASE	167	2.0000	1.0000	18.0000	101.0000
CASE	168	2.0000	1.0000	16.0000	76.0000
CASE	169	2.0000	1.0000	17.0000	84.0000
CASE	170	2.0000	1.0000	16.0000	77.0000

CASE 171	2.0000	1.0000	15.0000	48.0000
CASE 172	2.0000	1.0000	17.0000	69.0000
CASE 173	2.0000	1.0000	19.0000	115.0000
CASE 174	2.0000	1.0000	14.0000	52.0000
CASE 175	2.0000	1.0000	15.0000	55.0000
CASE 176	2.0000	1.0000	17.0000	89.0000
CASE 177	2.0000	2.0000	16.0000	80.0000
CASE 178	2.0000	2.0000	15.0000	56.0000
CASE 179	2.0000	2.0000	16.0000	66.0000
CASE 180	2.0000	2.0000	17.0000	81.0000
CASE 181	2.0000	2.0000	17.0000	87.0000
CASE 182	2.0000	2.0000	18.0000	98.0000
CASE 183	2.0000	2.0000	16.0000	74.0000
CASE 184	2.0000	2.0000	18.0000	108.0000
CASE 185	2.0000	2.0000	17.0000	88.0000
CASE 186	2.0000	2.0000	20.0000	154.0000
CASE 187	2.0000	2.0000	14.0000	65.0000
CASE 188	2.0000	2.0000	18.0000	91.0000
CASE 189	2.0000	2.0000	15.0000	55.0000
CASE 190	2.0000	2.0000	18.0000	106.0000
CASE 191	2.0000	2.0000	16.0000	72.0000
CASE 192	2.0000	2.0000	16.0000	73.0000
CASE 193	2.0000	2.0000	15.0000	65.0000
CASE 194	2.0000	2.0000	20.0000	148.0000
CASE 195	2.0000	2.0000	17.0000	78.0000
CASE 196	2.0000	2.0000	16.0000	71.0000
CASE 197	2.0000	3.0000	18.0000	91.0000
CASE 198	2.0000	3.0000	17.0000	85.0000
CASE 199	2.0000	3.0000	13.0000	38.0000
CASE 200	2.0000	3.0000	17.0000	75.0000
CASE 201	2.0000	3.0000	16.0000	56.0000
CASE 202	2.0000	3.0000	17.0000	89.0000
CASE 203	2.0000	3.0000	16.0000	62.0000
CASE 204	2.0000	3.0000	17.0000	74.0000
CASE 205	2.0000	3.0000	17.0000	80.0000
CASE 206	2.0000	3.0000	17.0000	78.0000
CASE 207	2.0000	3.0000	17.0000	80.0000
CASE 208	2.0000	3.0000	16.0000	59.0000
CASE 209	2.0000	3.0000	16.0000	62.0000
CASE 210	2.0000	3.0000	19.0000	122.0000
CASE 211	2.0000	3.0000	16.0000	64.0000
CASE 212	2.0000	3.0000	17.0000	88.0000
CASE 213	2.0000	3.0000	17.0000	80.0000
CASE 214	2.0000	3.0000	17.0000	88.0000
CASE 215	2.0000	3.0000	16.0000	73.0000
CASE 216	2.0000	3.0000	17.0000	84.0000
CASE 217	2.0000	4.0000	17.0000	78.0000
CASE 218	2.0000	4.0000	18.0000	106.0000
CASE 219	2.0000	4.0000	16.0000	68.0000
CASE 220	2.0000	4.0000	17.0000	87.0000
CASE 221	2.0000	4.0000	16.0000	75.0000
CASE 222	2.0000	4.0000	18.0000	87.0000
CASE 223	2.0000	4.0000	16.0000	79.0000
CASE 224	2.0000	4.0000	17.0000	78.0000
CASE 225	2.0000	4.0000	19.0000	108.0000
CASE 226	2.0000	4.0000	17.0000	70.0000
CASE 227	2.0000	4.0000	20.0000	126.0000
CASE 228	2.0000	4.0000	18.0000	93.0000
CASE 229	2.0000	4.0000	16.0000	66.0000
CASE 230	2.0000	4.0000	18.0000	101.0000
CASE 231	2.0000	4.0000	15.0000	62.0000
CASE 232	2.0000	4.0000	17.0000	75.0000

CASE	233	2.0000	4.0000	18.0000	101.0000
CASE	234	2.0000	4.0000	20.0000	122.0000
CASE	235	2.0000	4.0000	16.0000	69.0000
CASE	236	2.0000	4.0000	17.0000	76.0000
CASE	237	3.0000	1.0000	18.0000	96.0000
CASE	238	3.0000	1.0000	16.0000	68.0000
CASE	239	3.0000	1.0000	16.0000	77.0000
CASE	240	3.0000	1.0000	17.0000	74.0000
CASE	241	3.0000	1.0000	15.0000	62.0000
CASE	242	3.0000	1.0000	15.0000	63.0000
CASE	243	3.0000	1.0000	17.0000	78.0000
CASE	244	3.0000	1.0000	14.0000	39.0000
CASE	245	3.0000	1.0000	16.0000	72.0000
CASE	246	3.0000	1.0000	15.0000	54.0000
CASE	247	3.0000	1.0000	15.0000	71.0000
CASE	248	3.0000	1.0000	15.0000	51.0000
CASE	249	3.0000	1.0000	16.0000	76.0000
CASE	250	3.0000	1.0000	17.0000	68.0000
CASE	251	3.0000	1.0000	17.0000	84.0000
CASE	252	3.0000	1.0000	17.0000	71.0000
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CASE	254	3.0000	1.0000	17.0000	73.0000
CASE	255	3.0000	1.0000	16.0000	72.0000
CASE	256	3.0000	1.0000	17.0000	72.0000
CASE	257	3.0000	2.0000	15.0000	64.0000
CASE	258	3.0000	2.0000	17.0000	70.0000
CASE	259	3.0000	2.0000	14.0000	44.0000
CASE	260	3.0000	2.0000	14.0000	42.0000
CASE	261	3.0000	2.0000	22.0000	200.0000
CASE	262	3.0000	2.0000	15.0000	53.0000
CASE	263	3.0000	2.0000	15.0000	68.0000
CASE	264	3.0000	2.0000	15.0000	56.0000
CASE	265	3.0000	2.0000	14.0000	40.0000
CASE	266	3.0000	2.0000	14.0000	49.0000
CASE	267	3.0000	2.0000	16.0000	68.0000
CASE	268	3.0000	2.0000	16.0000	74.0000
CASE	269	3.0000	2.0000	18.0000	113.0000
CASE	270	3.0000	2.0000	18.0000	96.0000
CASE	271	3.0000	2.0000	18.0000	107.0000
CASE	272	3.0000	2.0000	15.0000	51.0000
CASE	273	3.0000	2.0000	18.0000	91.0000
CASE	274	3.0000	2.0000	15.0000	53.0000
CASE	275	3.0000	3.0000	16.0000	68.0000
CASE	276	3.0000	3.0000	14.0000	45.0000
CASE	277	3.0000	3.0000	13.0000	38.0000
CASE	278	3.0000	3.0000	16.0000	75.0000
CASE	279	3.0000	3.0000	18.0000	103.0000
CASE	280	3.0000	3.0000	14.0000	53.0000
CASE	281	3.0000	3.0000	16.0000	66.0000
CASE	282	3.0000	3.0000	13.0000	27.0000
CASE	283	3.0000	3.0000	16.0000	70.0000
CASE	284	3.0000	3.0000	15.0000	58.0000
CASE	285	3.0000	3.0000	17.0000	88.0000
CASE	286	3.0000	3.0000	17.0000	83.0000
CASE	287	3.0000	3.0000	17.0000	77.0000
CASE	288	3.0000	3.0000	15.0000	64.0000
CASE	289	3.0000	3.0000	17.0000	80.0000
CASE	290	3.0000	3.0000	18.0000	106.0000
CASE	291	3.0000	3.0000	15.0000	64.0000
CASE	292	3.0000	3.0000	14.0000	50.0000
CASE	293	3.0000	3.0000	17.0000	76.0000
CASE	294	3.0000	4.0000	13.0000	34.0000

CASE	295	3.0000	4.0000	16.0000	69.0000
CASE	296	3.0000	4.0000	16.0000	70.0000
CASE	297	3.0000	4.0000	15.0000	61.0000
CASE	298	3.0000	4.0000	13.0000	32.0000
CASE	299	3.0000	4.0000	15.0000	60.0000
CASE	300	3.0000	4.0000	14.0000	52.0000
CASE	301	3.0000	4.0000	14.0000	48.0000
CASE	302	3.0000	4.0000	12.0000	25.0000
CASE	303	3.0000	4.0000	15.0000	50.0000
CASE	304	3.0000	4.0000	15.0000	55.0000
CASE	305	3.0000	4.0000	18.0000	89.0000
CASE	306	3.0000	4.0000	16.0000	62.0000
CASE	307	3.0000	4.0000	17.0000	88.0000
CASE	308	3.0000	4.0000	14.0000	53.0000
CASE	309	3.0000	4.0000	16.0000	68.0000
CASE	310	3.0000	4.0000	17.0000	77.0000
CASE	311	3.0000	4.0000	15.0000	61.0000
CASE	312	3.0000	4.0000	13.0000	30.0000
CASE	313	3.0000	4.0000	16.0000	65.0000
CASE	314	4.0000	1.0000	16.0000	75.0000
CASE	315	4.0000	1.0000	17.0000	76.0000
CASE	316	4.0000	1.0000	16.0000	64.0000
CASE	317	4.0000	1.0000	17.0000	90.0000
CASE	318	4.0000	1.0000	13.0000	44.0000
CASE	319	4.0000	1.0000	16.0000	58.0000
CASE	320	4.0000	1.0000	18.0000	120.0000
CASE	321	4.0000	1.0000	16.0000	72.0000
CASE	322	4.0000	1.0000	15.0000	53.0000
CASE	323	4.0000	1.0000	15.0000	48.0000
CASE	324	4.0000	1.0000	17.0000	73.0000
CASE	325	4.0000	1.0000	15.0000	59.0000
CASE	326	4.0000	1.0000	18.0000	93.0000
CASE	327	4.0000	1.0000	15.0000	53.0000
CASE	328	4.0000	1.0000	16.0000	76.0000
CASE	329	4.0000	1.0000	16.0000	68.0000
CASE	330	4.0000	1.0000	16.0000	70.0000
CASE	331	4.0000	1.0000	17.0000	72.0000
CASE	332	4.0000	1.0000	18.0000	99.0000
CASE	333	4.0000	1.0000	17.0000	68.0000
CASE	334	4.0000	2.0000	18.0000	101.0000
CASE	335	4.0000	2.0000	16.0000	54.0000
CASE	336	4.0000	2.0000	19.0000	123.0000
CASE	337	4.0000	2.0000	16.0000	70.0000
CASE	338	4.0000	2.0000	17.0000	80.0000
CASE	339	4.0000	2.0000	19.0000	103.0000
CASE	340	4.0000	2.0000	17.0000	90.0000
CASE	341	4.0000	2.0000	15.0000	58.0000
CASE	342	4.0000	2.0000	14.0000	40.0000
CASE	343	4.0000	2.0000	16.0000	70.0000
CASE	344	4.0000	2.0000	14.0000	38.0000
CASE	345	4.0000	2.0000	15.0000	58.0000
CASE	346	4.0000	2.0000	16.0000	75.0000
CASE	347	4.0000	2.0000	17.0000	81.0000
CASE	348	4.0000	2.0000	18.0000	107.0000
CASE	349	4.0000	2.0000	18.0000	83.0000
CASE	350	4.0000	2.0000	17.0000	80.0000
CASE	351	4.0000	2.0000	18.0000	102.0000
CASE	352	4.0000	2.0000	19.0000	120.0000
CASE	353	4.0000	2.0000	17.0000	77.0000
CASE	354	4.0000	3.0000	17.0000	71.0000
CASE	355	4.0000	3.0000	14.0000	44.0000
CASE	356	4.0000	3.0000	16.0000	61.0000

CASE	357	4.0000	3.0000	17.0000	93.0000
CASE	358	4.0000	3.0000	14.0000	42.0000
CASE	359	4.0000	3.0000	17.0000	88.0000
CASE	360	4.0000	3.0000	16.0000	80.0000
CASE	361	4.0000	3.0000	17.0000	78.0000
CASE	362	4.0000	3.0000	15.0000	64.0000
CASE	363	4.0000	3.0000	17.0000	80.0000
CASE	364	4.0000	3.0000	15.0000	47.0000
CASE	365	4.0000	3.0000	17.0000	76.0000
CASE	366	4.0000	3.0000	15.0000	61.0000
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CASE	369	4.0000	3.0000	17.0000	76.0000
CASE	370	4.0000	3.0000	17.0000	78.0000
CASE	371	4.0000	3.0000	16.0000	62.0000
CASE	372	4.0000	3.0000	15.0000	60.0000
CASE	373	4.0000	4.0000	16.0000	60.0000
CASE	374	4.0000	4.0000	18.0000	105.0000
CASE	375	4.0000	4.0000	15.0000	58.0000
CASE	376	4.0000	4.0000	16.0000	62.0000
CASE	377	4.0000	4.0000	20.0000	151.0000
CASE	378	4.0000	4.0000	15.0000	46.0000
CASE	379	4.0000	4.0000	17.0000	75.0000
CASE	380	4.0000	4.0000	16.0000	64.0000
CASE	381	4.0000	4.0000	17.0000	71.0000
CASE	382	4.0000	4.0000	19.0000	110.0000
CASE	383	4.0000	4.0000	15.0000	53.0000
CASE	384	4.0000	4.0000	16.0000	63.0000
CASE	385	4.0000	4.0000	16.0000	86.0000
CASE	386	4.0000	4.0000	17.0000	84.0000
CASE	387	4.0000	4.0000	17.0000	73.0000
CASE	388	4.0000	4.0000	17.0000	84.0000
CASE	389	4.0000	4.0000	17.0000	83.0000
CASE	390	4.0000	4.0000	16.0000	61.0000
CASE	391	4.0000	4.0000	16.0000	62.0000
CASE	392	5.0000	1.0000	18.0000	96.0000
CASE	393	5.0000	1.0000	19.0000	121.0000
CASE	394	5.0000	1.0000	18.0000	94.0000
CASE	395	5.0000	1.0000	17.0000	80.0000
CASE	396	5.0000	1.0000	18.0000	100.0000
CASE	397	5.0000	1.0000	17.0000	85.0000
CASE	398	5.0000	1.0000	16.0000	77.0000
CASE	399	5.0000	1.0000	16.0000	57.0000
CASE	400	5.0000	1.0000	16.0000	78.0000
CASE	401	5.0000	1.0000	15.0000	44.0000
CASE	402	5.0000	1.0000	16.0000	66.0000
CASE	403	5.0000	1.0000	16.0000	62.0000
CASE	404	5.0000	1.0000	15.0000	48.0000
CASE	405	5.0000	1.0000	15.0000	60.0000
CASE	406	5.0000	1.0000	14.0000	44.0000
CASE	407	5.0000	1.0000	18.0000	94.0000
CASE	408	5.0000	1.0000	14.0000	45.0000
CASE	409	5.0000	1.0000	14.0000	40.0000
CASE	410	5.0000	1.0000	19.0000	130.0000
CASE	411	5.0000	2.0000	17.0000	80.0000
CASE	412	5.0000	2.0000	14.0000	56.0000
CASE	413	5.0000	2.0000	19.0000	128.0000
CASE	414	5.0000	2.0000	14.0000	51.0000
CASE	415	5.0000	2.0000	16.0000	70.0000
CASE	416	5.0000	2.0000	17.0000	74.0000
CASE	417	5.0000	2.0000	16.0000	77.0000
CASE	418	5.0000	2.0000	19.0000	131.0000

CASE	419	5.0000	2.0000	16.0000	75.0000
CASE	420	5.0000	2.0000	15.0000	58.0000
CASE	421	5.0000	2.0000	15.0000	58.0000
CASE	422	5.0000	2.0000	17.0000	82.0000
CASE	423	5.0000	2.0000	15.0000	65.0000
CASE	424	5.0000	2.0000	18.0000	97.0000
CASE	425	5.0000	2.0000	17.0000	84.0000
CASE	426	5.0000	2.0000	15.0000	60.0000
CASE	427	5.0000	2.0000	15.0000	55.0000
CASE	428	5.0000	2.0000	17.0000	80.0000
CASE	429	5.0000	2.0000	15.0000	56.0000
CASE	430	5.0000	3.0000	18.0000	97.0000
CASE	431	5.0000	3.0000	16.0000	64.0000
CASE	432	5.0000	3.0000	18.0000	115.0000
CASE	433	5.0000	3.0000	19.0000	125.0000
CASE	434	5.0000	3.0000	15.0000	58.0000
CASE	435	5.0000	3.0000	16.0000	71.0000
CASE	436	5.0000	3.0000	17.0000	88.0000
CASE	437	5.0000	3.0000	16.0000	71.0000
CASE	438	5.0000	3.0000	17.0000	81.0000
CASE	439	5.0000	3.0000	19.0000	117.0000
CASE	440	5.0000	3.0000	17.0000	71.0000
CASE	441	5.0000	3.0000	15.0000	58.0000
CASE	442	5.0000	3.0000	15.0000	52.0000
CASE	443	5.0000	3.0000	15.0000	60.0000
CASE	444	5.0000	3.0000	17.0000	79.0000
CASE	445	5.0000	3.0000	17.0000	80.0000
CASE	446	5.0000	3.0000	17.0000	85.0000
CASE	447	5.0000	3.0000	17.0000	82.0000
CASE	448	5.0000	3.0000	16.0000	77.0000
CASE	449	5.0000	3.0000	15.0000	60.0000
CASE	450	5.0000	4.0000	17.0000	73.0000
CASE	451	5.0000	4.0000	14.0000	52.0000
CASE	452	5.0000	4.0000	17.0000	88.0000
CASE	453	5.0000	4.0000	18.0000	95.0000
CASE	454	5.0000	4.0000	15.0000	58.0000
CASE	455	5.0000	4.0000	18.0000	100.0000
CASE	456	5.0000	4.0000	15.0000	61.0000
CASE	457	5.0000	4.0000	17.0000	79.0000
CASE	458	5.0000	4.0000	17.0000	93.0000
CASE	459	5.0000	4.0000	16.0000	70.0000
CASE	460	5.0000	4.0000	17.0000	89.0000
CASE	461	5.0000	4.0000	18.0000	96.0000
CASE	462	5.0000	4.0000	16.0000	61.0000
CASE	463	5.0000	4.0000	17.0000	70.0000
CASE	464	5.0000	4.0000	19.0000	124.0000
CASE	465	5.0000	4.0000	16.0000	66.0000
CASE	466	5.0000	4.0000	20.0000	121.0000
CASE	467	5.0000	4.0000	18.0000	84.0000
CASE	468	5.0000	4.0000	19.0000	122.0000
CASE	469	5.0000	4.0000	15.0000	50.0000