Name:

Math Department Quarantine Packet

Complete

- at least one puzzle sheet
- at least one Graded Review
- at least one level of the problem of the month: "Party Time"

Bring these back to your math teacher the day you get back to school.

Puzzle Sheets

Front/Back

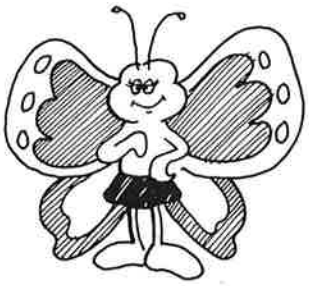
Why Is Your Nose in the Middle of Your Face?

Write each answer, then mark it in the answer column. For each set of exercises, there is one extra answer. Write the letter of this answer in the corresponding box at the bottom of the page.

1	$-4 \cdot 5$	Answers:		**8**	$-2 \cdot 3 \cdot -5$	Answers:	
	$6 \cdot -8$	(G) -48	(K) -20		$4 \cdot -1 \cdot 9$	(P) -36	(W) 30
	$-9 \cdot -2$	(E) -18	(R) 18		$-8 \cdot -5 \cdot 2$	(S) 36	(V) 80
2	$-3 \cdot 8$			**9**	$6 \cdot -2 \cdot -4$		
	$-4 \cdot -6$	(B) 24	(T) -49		$-7 \cdot 5 \cdot 2$	(L) 48	(T) -50
	$7 \cdot 7$	(U) -24	(F) 49		$-3 \cdot -8 \cdot -2$	(N) -70	(D) -48
3	$-5 \cdot -9$			**10**	$4 \cdot 3 \cdot -5$		
	$20 \cdot -4$	(S) -48	(V) -80		$-9 \cdot -8 \cdot -1$	(H) -72	(U) -60
	$-16 \cdot 2$	(M) -32	(D) 45		$-2 \cdot 2 \cdot -6$	(R) 24	(E) -24
4	$6 \cdot -6$			**11**	$-7 \cdot -3 \cdot -4$		
	$-10 \cdot -18$	(L) -36	(W) 36		$5 \cdot -9 \cdot 2$	(O) -90	(H) 84
	$-12 \cdot -3$	(I) -180	(Y) 180		$-6 \cdot -5 \cdot 3$	(T) -84	(W) 90
5	$-1 \cdot 24$			**12**	$-8 \cdot 2 \cdot 10$		
	$2 \cdot -24$	(H) -24	(P) -48		$4 \cdot -5 \cdot -5$	(C) -100	(P) -160
	$-3 \cdot -24$	(O) 72	(T) 84		$-6 \cdot -8 \cdot -2$	(A) 100	(L) -96
6	$-7 \cdot -11$			**13**	$-7 \cdot 9 \cdot -1$		
	$15 \cdot -4$	(G) -60	(E) 75		$-3 \cdot -5 \cdot -3$	(O) 63	(E) -45
	$-12 \cdot -5$	(J) 77	(C) 60		$4 \cdot 8 \cdot -2$	(I) -48	(B) -64
7	$4 \cdot 50$			**14**	$-2 \cdot -15 \cdot -5$		
	$-25 \cdot 8$	(R) -100	(B) 200		$-6 \cdot -1 \cdot 25$	(A) 150	(N) 27
	$-90 \cdot 0$	(F) 0	(M) -200		$3 \cdot -3 \cdot 3$	(M) -27	(Y) -150

4	9	13	3	5	11	1	8	12	6	14	2	10	7

Why Didn't the Butterfly Go to the Dance?



Write each answer, then mark it in the answer column. For each set of exercises, there is one extra answer. Write the letter of this answer in the corresponding box at the bottom of the page.

1	$-5 + 2$	Answers:		**8**	$9 + -4$	Answers:	
	$7 + -3$	(V) 4	(C) -3		$3 + -7$	(S) 9	(A) -4
	$-4 + -6$	(A) -8	(K) -10		$-6 + 15$	(I) 12	(U) 5
2	$1 + -8$			**9**	$-7 + 1$		
	$-6 + -12$	(F) 7	(L) 13		$-5 + -12$	(A) 8	(T) -11
	$-2 + 9$	(U) -7	(J) -18		$9 + -20$	(P) -6	(E) -17
3	$-7 + 6$			**10**	$-4 + -3$		
	$5 + -8$	(G) -1	(N) -3		$-4 + 3$	(C) -7	(R) 1
	$12 + 13$	(Y) 25	(H) 18		$4 + -3$	(T) 7	(O) -1
4	$-10 + -10$			**11**	$-8 + 18$		
	$17 + -1$	(D) 16	(T) -8		$6 + -19$	(N) 10	(W) -16
	$-11 + 5$	(R) -20	(B) -6		$13 + 5$	(F) 18	(S) -13
5	$4 + -9$			**12**	$11 + -2$		
	$-7 + -15$	(A) 14	(O) 9		$-7 + -4$	(L) 12	(E) 9
	$-3 + 12$	(P) -22	(C) -5		$-15 + 8$	(D) -7	(T) -11
6	$16 + -8$			**13**	$-6 + 12$		
	$-5 + 20$	(M) 8	(T) 15		$99 + -99$	(P) -2	(G) 6
	$-6 + 6$	(S) -4	(W) 0		$3 + -5$	(R) 0	(B) -4
7	$-13 + -4$			**14**	$-20 + -30$		
	$-7 + 2$	(F) -5	(Z) -17		$70 + -40$	(Y) -50	(M) 50
	$14 + -16$	(E) -2	(O) 10		$-70 + 40$	(N) 30	(T) -30

8	4	11	1	6	9	14	7	10	3	13	5	2	12

Puzzle Sheet

Front | Back

Why Are Broken Clocks So Quiet?

Cross out the box containing each correct answer. When you finish, write the letters from the remaining boxes in the spaces at the bottom of the page.

① $\frac{2}{3} = \frac{\quad}{12}$ + $\frac{1}{4} = \frac{\quad}{12}$

② $\frac{2}{5} = \frac{\quad}{15}$ + $\frac{1}{3} = \frac{\quad}{15}$

③ $\frac{1}{2} = \frac{\quad}{8}$ + $\frac{3}{8} = \frac{\quad}{8}$

④ $\frac{2}{3} = \frac{\quad}{6}$ + $\frac{1}{2} = \frac{\quad}{6}$

⑤ $\frac{1}{2} = \frac{\quad}{10}$ + $\frac{4}{5} = \frac{\quad}{10}$

⑥ $\frac{3}{4} = \frac{\quad}{8}$ + $\frac{5}{8} = \frac{\quad}{8}$

⑦ $\frac{1}{3} = \frac{\quad}{6}$ + $\frac{1}{6} = \frac{\quad}{6}$

⑧ $\frac{3}{5} = \frac{\quad}{20}$ + $\frac{1}{4} = \frac{\quad}{20}$

⑨ $\frac{5}{6} = \frac{\quad}{18}$ + $\frac{4}{9} = \frac{\quad}{18}$

⑩ $\frac{2}{3} = \frac{\quad}{24}$ + $\frac{3}{8} = \frac{\quad}{24}$

⑪ $\frac{1}{2} = \frac{\quad}{10}$ + $\frac{3}{10} = \frac{\quad}{10}$

⑫ $\frac{3}{4} = \frac{\quad}{12}$ + $\frac{5}{6} = \frac{\quad}{12}$

⑬ $\frac{4}{5} = \frac{\quad}{10}$ + $\frac{7}{10} = \frac{\quad}{10}$

⑭ $\frac{1}{3} = \frac{\quad}{12}$ + $\frac{5}{12} = \frac{\quad}{12}$

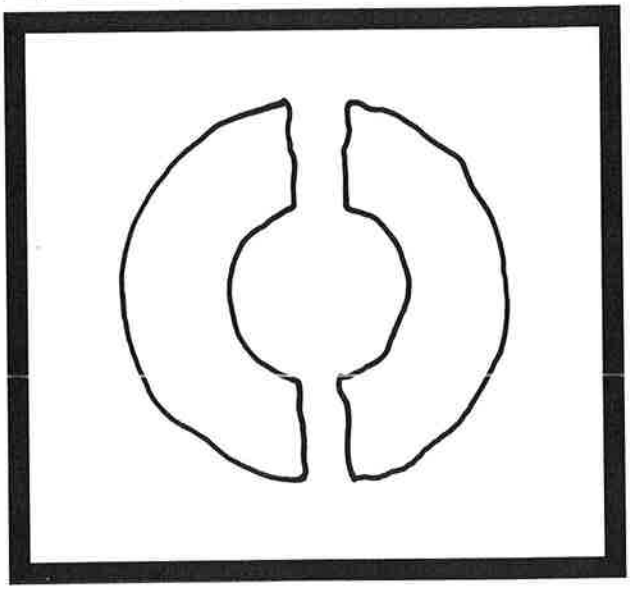
⑮ $\frac{7}{8} = \frac{\quad}{24}$ + $\frac{5}{6} = \frac{\quad}{24}$

⑯ $\frac{2}{5} = \frac{\quad}{40}$ + $\frac{3}{8} = \frac{\quad}{40}$

SO	IT	TH	ET	IM	IF	EY	IX	IT	DO	OR
$1\frac{1}{6}$	$1\frac{17}{24}$	$1\frac{11}{18}$	$1\frac{3}{8}$	$\frac{11}{15}$	$\frac{4}{5}$	$1\frac{1}{12}$	$1\frac{5}{18}$	$\frac{3}{4}$	$1\frac{13}{24}$	$\frac{7}{8}$
BE	NT	IN	TO	AC	AN	LO	CK	UD	TI	ME
$1\frac{1}{2}$	$\frac{13}{20}$	$1\frac{1}{24}$	$\frac{27}{40}$	$\frac{1}{2}$	$\frac{11}{12}$	$\frac{31}{40}$	$1\frac{5}{24}$	$1\frac{7}{12}$	$1\frac{3}{10}$	$\frac{17}{20}$

LAW OF THE DONUT

What Famous Rule of Donuts Is Illustrated by This Picture?



DIRECTIONS:

Do each exercise below. Find your answer in the code and write the letter of the exercise above it.

Law of the Donut:

___	___	___	___	___	___	___	___	___	___	___
4	$2\frac{2}{5}$	$1\frac{2}{3}$	$1\frac{2}{9}$	$\frac{3}{10}$	$2\frac{1}{3}$	$\frac{3}{4}$	$1\frac{1}{4}$	$2\frac{3}{7}$	$1\frac{4}{5}$	$1\frac{3}{4}$
___	___	___	___	___	___	___	___	___	___	___
$2\frac{1}{2}$	$\frac{2}{3}$	$1\frac{5}{9}$	$\frac{1}{2}$	$1\frac{5}{8}$	2	$1\frac{7}{10}$	$\frac{3}{5}$	$1\frac{1}{2}$	$1\frac{3}{5}$	$1\frac{1}{6}$

(E) $\frac{7}{8} - \frac{3}{8}$

(O) $\frac{9}{4} - \frac{3}{4}$

(W) $\frac{7}{10} + \frac{17}{10}$

(E) $\frac{9}{7} + \frac{3}{7} + \frac{5}{7}$

(A) $\frac{2}{3} + \frac{5}{3}$

(A) $\frac{1}{9} + \frac{5}{9}$

(L) $\frac{15}{16} - \frac{3}{16}$

(O) $\frac{8}{15} + \frac{4}{15} + \frac{13}{15}$

(S) $\frac{6}{5} + \frac{3}{5}$

(E) $\frac{19}{12} - \frac{5}{12}$

(A) $\frac{13}{6} - \frac{1}{6}$

(M) $\frac{5}{12} + \frac{11}{12} + \frac{14}{12}$

(H) $\frac{9}{20} - \frac{3}{20}$

(K) $\frac{16}{9} - \frac{2}{9}$

(T) $\frac{5}{2} + \frac{3}{2}$

(H) $\frac{67}{100} - \frac{7}{100}$

(V) Rugged Carpet Company installed $\frac{7}{8}$-inch carpet over $\frac{3}{8}$-inch padding. What was the combined thickness?

_____ in.

(L) Bert walked $\frac{9}{10}$ mile to Ernie's house. Then Bert and Ernie walked $\frac{7}{10}$ mile to the park. How far did Bert walk altogether? _____ mi

Puzzle Sheet

Front | Back

What Did the Cowboy Artist Like to Do?

Write each answer, then mark it in the answer columns. For each set of exercises, there is one extra answer. Write the letter of this answer in the corresponding box at the right.

4	9	6	2	7	1	5	10	3	8

1 $\frac{1}{2} \times \frac{1}{4}$

$\frac{2}{5} \times \frac{1}{3}$

$\frac{3}{4} \times \frac{5}{7}$

Answers

(L) $\frac{2}{15}$ (I) $\frac{9}{28}$

(B) $\frac{1}{8}$ (P) $\frac{15}{28}$

2 $\frac{3}{10} \times \frac{1}{2}$

$\frac{5}{8} \times \frac{1}{6}$

$\frac{2}{3} \times \frac{3}{4}$

(E) $\frac{1}{2}$ (A) $\frac{3}{20}$

(K) $\frac{5}{48}$ (W) $\frac{3}{8}$

3 $\frac{5}{6} \times \frac{4}{5}$

$\frac{3}{8} \times \frac{1}{3}$

$\frac{9}{10} \times \frac{5}{8}$

(V) $\frac{2}{3}$ (T) $\frac{9}{16}$

(U) $\frac{5}{8}$ (M) $\frac{1}{8}$

4 $\frac{1}{2}$ of $\frac{1}{2}$

$\frac{3}{5}$ of $\frac{1}{4}$

$\frac{2}{3}$ of $\frac{5}{12}$

(D) $\frac{1}{6}$ (L) $\frac{5}{18}$

(F) $\frac{3}{20}$ (H) $\frac{1}{4}$

5 Jay found $\frac{1}{3}$ of a sheet cake in the kitchen. He ate $\frac{1}{2}$ of it. What fraction of the whole cake did he eat? _____

(C) $\frac{1}{10}$

(S) $\frac{1}{8}$

The distance around a track is $\frac{1}{4}$ mile. Diana ran $\frac{2}{5}$ of the distance. How far did she run? _____ mi

(N) $\frac{1}{6}$

6 $\frac{1}{3} \times 5$

$\frac{1}{5} \times 8$

$\frac{1}{4} \times 6$

Answers

(T) $1\frac{1}{2}$ (I) $1\frac{2}{3}$

(A) $1\frac{1}{8}$ (S) $1\frac{3}{5}$

7 $\frac{2}{5} \times 11$

$\frac{7}{8}$ of 2

$4 \times \frac{5}{7}$

(N) $2\frac{6}{7}$ (H) $2\frac{1}{2}$

(F) $4\frac{2}{5}$ (M) $1\frac{3}{4}$

8 $\frac{3}{100}$ of 5

$\frac{5}{6}$ of $\frac{7}{10}$

$\frac{3}{8} \times \frac{8}{3}$

(S) $\frac{3}{20}$ (P) $\frac{7}{12}$

(L) 1 (N) $\frac{1}{2}$

9 $\frac{1}{2} \times \frac{1}{3} \times \frac{1}{4}$

$\frac{2}{3} \times \frac{1}{4} \times \frac{2}{3}$

$\frac{3}{5} \times \frac{1}{2} \times \frac{5}{9}$

(W) $\frac{1}{9}$ (E) $\frac{1}{6}$

(R) $\frac{5}{12}$ (I) $\frac{1}{24}$

10 The width of a photograph is $\frac{7}{10}$ of the length. The length is 5 inches. What is the width? _____ in.

(G) $3\frac{1}{4}$

A recipe for 4 dozen cookies calls for $\frac{3}{4}$ cup of sugar. How much sugar is needed to make 2 dozen cookies? _____ c

(T) $3\frac{1}{2}$

(K) $\frac{3}{8}$

Did All the Animals Go onto Noah's Ark in Pairs?

Estimate each product using a compatible number. Under each exercise, circle the letter of the better choice. Write this letter in the box containing the number of the exercise.

(1) $\frac{1}{3} \times 17$

V about 4

E about 6

(2) $\frac{1}{4} \times 29$

O about 7

C about 6

(3) $\frac{1}{5} \times 98$

K about 22

A about 20

(4) $\frac{2}{3} \times 28$

T about 19

R about 16

---

(5) $\frac{3}{4}$ of 45

I about 34

B about 30

(6) $\frac{1}{7}$ of 706

F about 90

S about 100

(7) $\frac{3}{5}$ of 19

R about 14

E about 11

(8) $\frac{1}{8}$ of 159

G about 30

P about 20

---

(9) $\frac{7}{10} \times 77$

M about 54

A about 60

(10) $\frac{2}{3} \times 154$

T about 100

H about 90

(11) $\frac{1}{4}$ of 270

Y about 80

H about 70

(12) $\frac{1}{12}$ of 365

S about 30

P about 25

---

(13) $\frac{1}{6}$ of \$31.50

E about \$5.00

D about \$4.00

(14) $\frac{2}{9}$ of \$87.75

N about \$20.00

F about \$30.00

(15) $\frac{3}{10}$ of \$297.95

M about \$80.00

W about \$90.00

---

(16) $\frac{1}{4}$ of 25

P greater than 6

R less than 6

(17) $\frac{5}{8} \times 47$

S greater than 30

N less than 30

(18) $\frac{2}{5}$ of \$148.25

B more than \$60.00

W less than \$60.00

---

(19) About $\frac{1}{3}$ of the 238 students at Adams Junior High walk to school. Estimate the number who walk.

L about 80 **G** about 90

(20) About $\frac{9}{10}$ of the 387 students at Lincoln School like math. Estimate the number who like math.

D about 300 **R** about 360

4	11	7		18	2	20	9	12		15	1	17	10		5	14		3	16	8	19	13	6

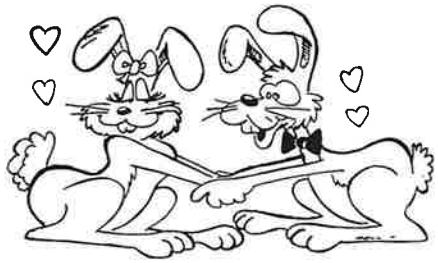
Front | Back

MIDDLE SCHOOL MATH WITH PIZZAZZ! BOOK A

TOPIC 4-f: Multiplying by a 1-Digit Factor

Puzzle Sheet

Mysteries of Love



Do each exercise below and find your answer in the code above that set of exercises. Each time the answer appears, write the letter of the exercise above it. You'll love it!

What did the boy candle say to the girl candle?

246	450	470	432	432	855	192	296	282	448	288

288	162	945	316	945	288	685	462	448	450	945	?

(U) 27×6 (G) 56×8 (A) 94×5

(I) 66×7 (S) 82×3 (L) 48×9

(E) 37×8 (H) 75×6 (W) 96×2

(T) $(27 \times 5) + (90 \times 9)$ (N) $(87 \times 7) + (19 \times 4)$

(O) There are 12 inches in a foot and 3 feet in a yard. How many inches are in 8 yards?

What did the boy rabbit say to the girl rabbit?

344	94	630	273	94	752	86	450	657	128	128	94	882

657	290	290	475	408	94	128	137	525	120	?

(Y) 39×7 (F) 68×6 (A) 73×9

(E) 40×3 (U) 94×8 (L) 58×5

(D) 86×4 (M) 75×7 (O) 47×2

(T) $(26 \times 9) + (81 \times 8)$ (C) $(54 \times 4) + (39 \times 6)$

(R) There are 16 ounces in a pint, 2 pints in a quart, and 4 quarts in a gallon. How many ounces are in a gallon?

Why Is It Dangerous to Do Math in the Jungle?

Mark each box containing a number that does *not* belong in that row. Then write the letters from these boxes on the lines at the right.

Multiples of 5	0 T	5 S	10 A	15 H	18 I	20 X	25 S	30 E	35 T	36 F	40 N	45 O	50 P	____
Multiples of 2	0 B	2 T	4 A	5 Y	6 E	8 A	10 I	11 O	12 L	14 K	16 G	17 U	18 A	____
Multiples of 8	0 N	4 A	8 L	16 S	24 K	32 L	40 R	44 D	48 E	50 D	56 E	64 D	72 N	____
Multiples of 3	0 K	3 N	6 U	9 M	12 I	14 T	15 H	18 B	21 R	24 E	26 W	27 N	28 O	____
Multiples of 6	0 P	6 L	12 O	15 A	18 R	24 F	30 E	36 T	40 N	42 S	48 T	52 D	54 E	____
Multiples of 9	0 F	9 I	18 T	27 W	36 H	42 S	45 E	54 O	63 V	66 I	72 E	81 N	84 X	____
Multiples of 4	0 T	4 H	6 Y	8 A	12 E	16 S	18 O	20 V	24 N	28 G	31 U	32 L	36 R	____
Multiples of 7	0 H	7 C	14 A	21 V	24 W	28 N	35 E	39 I	42 S	44 L	45 L	49 H	56 S	____
Even Numbers	6 S	11 G	14 O	10 A	2 I	16 N	8 O	12 U	0 R	4 O	15 E	10 W	9 T	____
Odd Numbers	5 E	13 T	17 E	7 I	18 A	19 L	1 G	15 R	11 H	0 T	3 S	2 E	9 M	____

Graded Review #1 Level 1

Name _____ Date _____

1. What number is in the hundredths place? 123.547 (Circle it)	2. 224 ÷ 4	3. ⅓ + ½	4. 5 - ¾
5. What is ½ of 5? (5 x ½)	6. How many ¼ are in 6? (6 ÷ ¼)	7. 1.23 + 12.05	8. Write 85/100 as a percent and decimal.
9. What is 25% of 80?	10. Make up a question that has 45% as the answer.	11. Are these fractions equivalent? $\frac{5}{6}$ and $\frac{15}{30}$	12. Put these in order from least to greatest. ⅞, ½, ¾

Graded Review #1 Level 2 (a little more challenging)

Name _____ Date _____

1. What number is in the hundredths place? 123.547 (Circle it)	2. 4,569 ÷ 5 *Write the remainder as a decimal*	3. 5 ⅓ + 7 ⅚	4. 5 - 3 ¾
5. What is ⅔ of 18? (18 x ⅔)	6. How many ¼ are in 6? (6 ÷ ¼)	7. 1.2 x 12.05	8. Write 7/10 as a percent and decimal.
9. What is 35% of 80?	10. Make up a question that has 45% as the answer.	11. Are these fractions equivalent? $\frac{5}{6}$ and $\frac{15}{30}$	12. Put these in order from least to greatest. ⅞, ⅚ , $\frac{8}{9}$

Graded Review #1 - Level 3 (a little more challenging than 2)

Name _____ Date _____

1. What is 21% of 910?	2. $7 \div \frac{3}{6}$ * WRITE THE ANSWER IN SIMPLEST FORM.	3. - 4001 - 564	4. $6\frac{2}{3} + 2\frac{1}{5}$
5. 23 x 122 = *SHOW YOUR WORK!	6. $3216 \div 12$ *SHOW YOUR WORK!	7. Write 89.5% as a fraction and decimal.	8. Round 967,233 to the nearest hundred thousand.
9. You borrow $7500 from your bank. They charge you 2% interest on the loan. If you pay it all back at once, how much will you have to repay?	10. Write and solve this equation: The absolute value of -9 minus 7 plus the absolute value of -3 plus -6.	11. $(16 - 80) + 6^2 \div 3 =$	12. Write two equivalent ratios for 12:3.

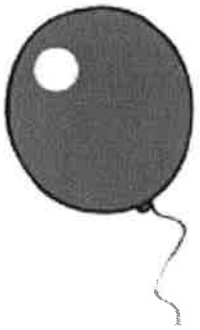
Graded Review Work Habits Self-Assessment

When working on this assignment, were you **responsible**? Did you put in a valiant **effort**? Were you **engaged**? Answer these questions to find out.

Place a check in either the "No" or "Yes" column.

Work Habit	No	Yes
I started this assignment several days before it was due AND turned it on time		
I showed all of my thinking and work in writing on the page		
When I was stuck I sought out help from either: • a teacher • another adult • a peer • an online tutorial resource (like Khan Academy) If you didn't get stuck at all, please write that.		
I checked all of my answers using the answer key, circling the ones I got wrong and putting checks next to the ones I got right. Then I worked hard to revise my work and ***correctly answer*** the questions I got wrong.		

Problem of the Month
Party Time



Level A

Cindy had a party. She invited two guests. Her guests each invited four guests, and then those guests each invited three guests.

How many people were at Cindy's party?

Explain how you determined your solution.

Level B

At Leslie's party ¼ of the people had long hair. One half of the people at the party were boys, and ¼ of the girls had short blond hair. None of the boys had long hair.

If there were 32 guests, what is the maximum number of girls who could have had short red hair?

Show how you determined you answer and why you know you have a correct solution.

Problem of the Month

Level C

Mia, Jake, Carol, Barbara, Ford and Jeff are all going to a costume party. Figure out what costume each person is wearing and when they arrived at the party.

- The person that arrived fourth was wearing a bathing suit.
- Barbara was the last to arrive.
- Jake and Mia arrived and stayed together.
- The first person was dressed as a French maid.
- Superman arrived right before Barbara.
- The potato heads were always together at the party.
- Ford was a surfer dude.
- The French maid was not Carol.
- The vampire arrived after Superman.

Level D

Your aunt is having a baby. You have created a party game for a baby shower. It is called Pick the Gender. You put pink and blue tiles into a bag. You ask two guests to pick one tile out of the bag without looking. You tell your guests that if they are the same color, Player A wins and if they are two different colors then Player B wins.

How many tiles of which colors did you put into the bag to make sure that both players have an equal chance of winning?

Explain your solution and why it is fair.

Problem of the Month

Level E

A man and his wife invite 5 other couples to a dinner party. As the guests arrive to visit before dinner, they shake hands. Not everybody shakes everybody's hands, and of course, no one shakes hands with his own spouse. Later, as they sit down to dinner, the host asks each other person, including his wife, "How many hands did you shake?" He notices, to his surprise, that each respondent shook a different number of hands.

How many did his wife shake?

Explain your solution and justify your reasoning.

Problem of the Month