Diamond Math Problems

Name: _____ Date: _____

Complete the diamond problems. The top cell contains the *product* of the numbers in the left and right cells, while the bottom cell contains the *sum*.

(1) 7 × 11	(2) 11 × 5	(3) 8 × 11	(4) 10 × 5
(5) 2 × 6	(6) 9 × 5	(7) 4 × 3	(8) 11 × 7
(9) 10 × 2	(10) 10 × 4	(11) 10 × 7	(12) 4 × 8
(13) 6 × 7	(14) 2 × 7	(15) 2 × 4	(16) 10 × 6
(17) 8 × 1	(18) 11 × 10	(19) 2 × 11	(20) 6 × 4
(21) 4 × 11	(22) 1 × 6	(23) 2 × 8	(24) 12 × 4
(25) 8 × 6	(26) 7 × 3	(27) 1 × 9	(28) 2 × 10

Diamond Math Problems

Name: _____ Date: _____

Complete the diamond problems. The top cell contains the *product* of the numbers in the left and right cells, while the bottom cell contains the *sum.*

(1)	8 / 6	(2)	45 / 14	(3)	14 / 9	(4)	35 / 12
(5)	40 / 14	(6)	96 / 20	(7)	20 / 9	(8)	11 / 12
(9)	90 / 19	(10)	30 / 13	(11)	15 / 8	(12)	48 / 14
(13)	16 / 10	(14)	63 / 16	(15)	40 / 13	(16)	8 / 6
(17)	44 / 15	(18)	80 / 18	(19)	11 / 12	(20)	20 / 12
(21)	108 / 21	(22)	28 / 11	(23)	35 / 12	(24)	18 / 11
(25)	22 / 13	(26)	40 / 13	(27)	5 / 6	(28)	60 / 17

Drops in the Bucket - Math Level D

Number 29

Name _____ **Score** _____

1 Basic Facts

7 + 5 =	12 – 6 =	8 x 9 =	7 x 6 =	32 ÷ 4 =
5 + 8 =	15 – 8 =	4 x 7 =	9 x 7 =	24 ÷ 6 =
2 + 6 =	9 – 5 =	6 x 8 =	0 x 0 =	28 ÷ 7 =

2 Algorithms

$3096.00	60,502	$82.00	7)7000	4 lbs 12 oz
+ 435.00	– 1,834	x 3		+ 7 oz

3 Estimating Rounding

Round to the nearest ten dollars, then estimate the answer.

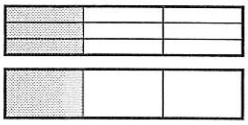
$19.95 ≈ ___ dollars
+ 19.99 ≈ ___ dollars
Total is about ___ dollars.

$83.99 ≈ ___ dollars
– 57.50 ≈ ___ dollars
Difference is about ___ dollars.

4 Story Problems

Dad's paycheck was $603.58. He put fifty dollars into the savings account, then paid bills of $245.81, $56.20, and $115.30. How much of his pay was left?

5 Equivalent Fractions



_____ = _____

Divide numerator and denominator by 3 to get an equivalent fraction.

$\frac{3}{12}$ =

6 Vocabulary Concepts Facts

Know and Spell
less
greater
equivalent
discount
dozen
total

A. Two-thirds is _____ than one-third.
B. How many feet in a mile? _____
C. If you get a discount, you pay (less, more).
D. How many eggs in half a dozen? _____
E. How hot must water get to boil? _____°F or _____°C

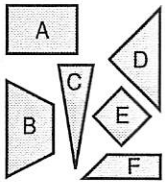
7 Fractional Parts

$\frac{1}{9}$ of 54	$\frac{1}{4}$ of 36	$\frac{1}{2}$ of 8	$\frac{1}{6}$ of 30	$\frac{1}{3}$ of 27

8 Place Value Numeration

A. What is ten thousand more than 926,071? _____
B. Write sixty-four thousand, seventeen. _____
C. Write expanded notation. 16,068 = _____
D. Write a 5-digit number with a 1 in the ten-thousands place. _____
E. Write the largest 6-digit number. _____

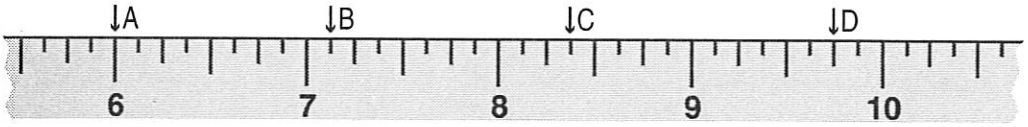
9 Other Important Topics



A. Which two shapes (A-F) have no right angles? _____
B. A square always has ____ right angles.
C. A rectangle always has 4 _____ angles.
D. Which triangle has a right angle, C or D? _____
E. A trapezoid can have zero or _____ right angles.

10 Rulers

A is at _____. B is at _____. C is at _____. D is at _____. Put E at $10\frac{1}{8}$.



Drops in the Bucket - Math Level D **Number 28**

Name _____ **Score** _____

1 Basic Facts

4 + 4 =	12 – 8 =	6 x 4 =	7 x 9 =	42 ÷ 6 =
3 + 9 =	5 – 0 =	4 x 6 =	6 x 3 =	20 ÷ 4 =
6 + 9 =	10 – 9 =	3 x 9 =	1 x 6 =	56 ÷ 8 =

2 Algorithms

36,900	7,364	$6.20	8)49	6 hrs 10 min
+ 4,489	– 2,925	x 4		– 3 hrs 45 min

3 Estimating Rounding

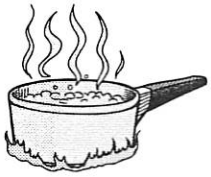
Round to the nearest ten dollars, then estimate the answer.

$44.44 ≈ ___ dollars
+ 82.89 ≈ ___ dollars
Total is about ___ dollars.

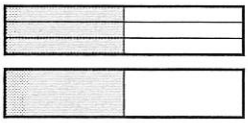
$58.00 ≈ ___ dollars
– 6.25 ≈ ___ dollars
Difference is about ___ dollars.

4 Story Problems

Shannon made 16 blue pot holders and half that many green ones. How many pot holders did she make in all?



5 Equivalent Fractions



_____ = _____

Divide numerator and denominator by 2 to get an equivalent fraction.

$\frac{2}{8}$ =

6 Vocabulary Concepts Facts

Know and Spell
leap year
discount
change
odd - even
pair - dozen
Fahrenheit

A. Which is the greatest: 1/2, 1/3, 1/4, or 1/100? _____
B. How many days in a year? _____ in leap year? _____
C. Give a clerk more than the cost, and you get _____.
D. In a baker's _____ you get one extra, or 13.
E. Water boils and turns to steam at 212° _____.

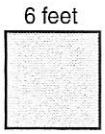
7 Fractional Parts

$\frac{1}{6}$ of 54 $\frac{1}{2}$ of 12 $\frac{1}{5}$ of 45 $\frac{1}{4}$ of 32 $\frac{1}{3}$ of 6

8 Place Value Numeration

A. What is ten thousand more than 726,594? _____
B. Write thirty-seven thousand. _____
C. Write expanded notation. 16,359 = _____
D. Write a 4-digit number with a 3 in the thousands place. _____
E. Arrange 2, 7, 3, and 6 to make the smallest number. _____

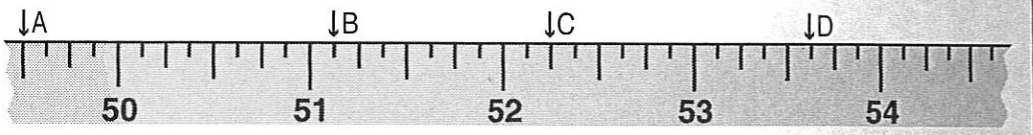
9 Other Important Topics



A. The perimeter of this pool is the distance _____ it.
B. The perimeter of the pool is 6 + 6 + 6 + 6, or _____ feet.
C. A quick way to find the perimeter is ____ x ____ = _____ feet.
D. If each side were 8 feet, the perimeter would be _____.
E. If the sides were 100 feet, the perimeter would be _____.

10 Rulers

A is at _____. B is at _____. C is at _____. D is at _____. Put E at $54\frac{1}{4}$.



Box-and-Whisker Plots

A **box-and-whisker plot** shows the distribution of data. You need five values to make a box-and-whisker plot.

- The **minimum** is the least value of the data.
- The **maximum** is the greatest value of the data.
- The **median** is the middle value of the data or the mean of the two middle values.
- The **lower quartile** is the median of the lower half of the data.
- The **upper quartile** is the median of the upper half of the data.

EXAMPLE

Use the data to make a box-and-whisker plot.

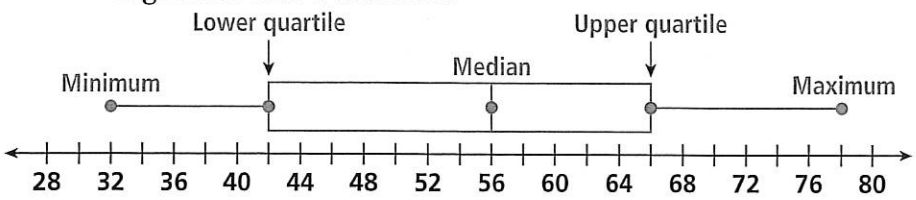
58, 60, 47, 56, 32, 78, 44, 72, 42, 35, 66

Order from least to greatest.	32, 35, 42, 44, 47, 56, 58, 60, 66, 72, 78
Find the minimum.	32, 35, 42, 44, 47, 56, 58, 60, 66, 72, 78
Find the maximum.	32, 35, 42, 44, 47, 56, 58, 60, 66, 72, 78
Find the median.	32, 35, 42, 44, 47, 56, 58, 60, 66, 72, 78
Find the lower quartile.	32, 35, 42, 44, 47, 56, 58, 60, 66, 72, 78
Find the upper quartile.	32, 35, 42, 44, 47, 56, 58, 60, 66, 72, 78

Step 1: Place a dot at the median, upper quartile, and lower quartile. Make a box connecting these points.

Step 2: Place a dot at the minimum and maximum.

Step 3: Connect the minimum and the maximum to the box with segments called whiskers.



PRACTICE

Use the data to make a box-and-whisker plot.

1. 8, 6, 5, 4, 12, 9, 2
2. 56, 61, 45, 55, 63, 59, 46
3. 28, 12, 35, 22, 13, 33, 33, 17, 18, 22, 25
4. 78, 85, 68, 57, 72, 63, 79, 60, 66, 52, 78