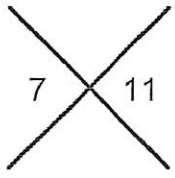
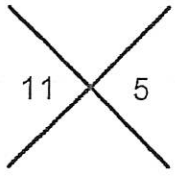
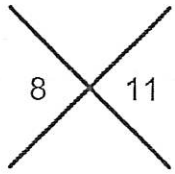
Diamond Math Problems

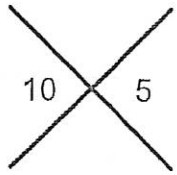
Name: _____ Date: _____

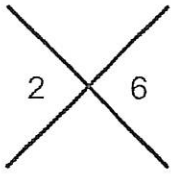
Complete the diamond problems. The top cell contains the *product* of the numbers in the left and right cells, while the bottom cell contains the *sum*.

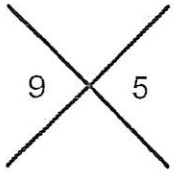
(1) 

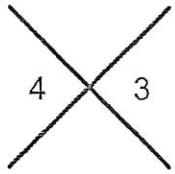
(2) 

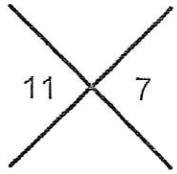
(3) 

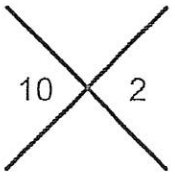
(4) 

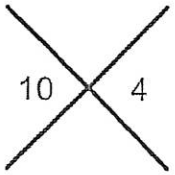
(5) 

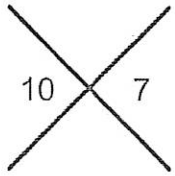
(6) 

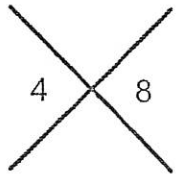
(7) 

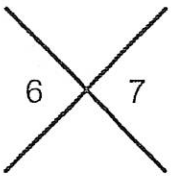
(8) 

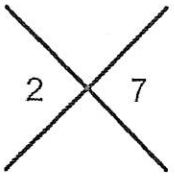
(9) 

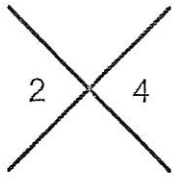
(10) 

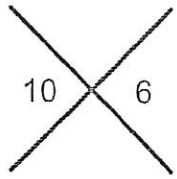
(11) 

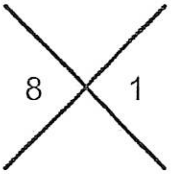
(12) 

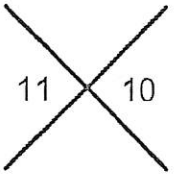
(13) 

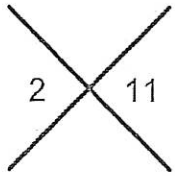
(14) 

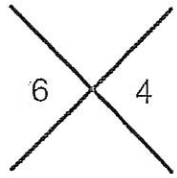
(15) 

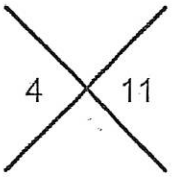
(16) 

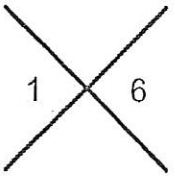
(17) 

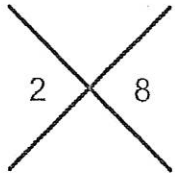
(18) 

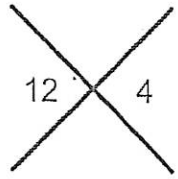
(19) 

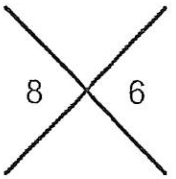
(20) 

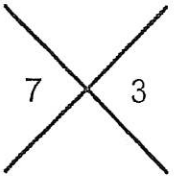
(21) 

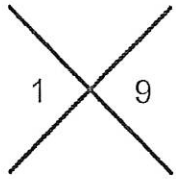
(22) 

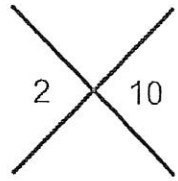
(23) 

(24) 

(25) 

(26) 

(27) 

(28) 

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 8

Name _____ **Score** _____

1 Basic Facts

6 + 8 =	13 – 7 =	8 x 8 =	5 x 4 =	45 ÷ 5 =
5 + 7 =	11 – 6 =	9 x 5 =	9 x 9 =	30 ÷ 5 =
6 + 4 =	7 – 1 =	5 x 8 =	5 x 7 =	15 ÷ 3 =

2 Algorithms

55,555 + 55,556	2,001 – 1,986	$2.00 x 9	$3\overline{)19}$	7 gal 1 qt – 2 gal 3 qts

3 Estimating Rounding

Round to the nearest ten dollars.

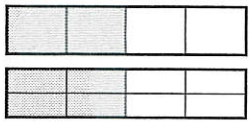
$79.00 ≈ _____ $4.80 ≈ _____ $243.18 ≈ _____

$93.50 ≈ _____ $239.00 ≈ _____

4 Story Problems

When we had the oil changed in our car the mileage was 23,568. We'll change the oil again after we drive another three thousand miles. What will the mileage be then?

5 Equivalent Fractions



_____ = _____

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

$\frac{2}{5}$ =

6 Vocabulary Concepts Facts

Know and Spell
multiply
divide
bottom - top
inverse
pound - ton
denominator

A. To find 1/3 of 12, just _____ 12 by 3.
B. The numerator is the _____ number of a fraction.
C. How many weeks in one year? _____
D. Division is the opposite, or _____, of multiplication.
E. A loaf of bread weighs 16 ounces, or one _____.

7 Fractional Parts

$\frac{1}{6}$ of 12 $\frac{1}{6}$ of 24 $\frac{1}{6}$ of 36 $\frac{1}{6}$ of 48 $\frac{1}{6}$ of 0

8 Place Value Numeration

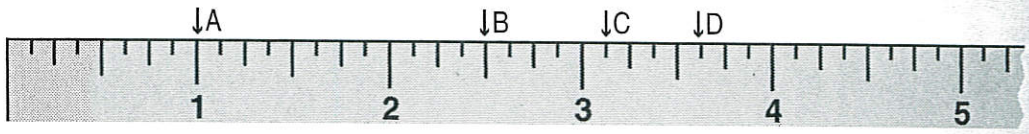
A. What is ten thousand more than 46,367? _____
B. Write sixty thousand, five hundred fifteen. _____
C. In 60,218 the six stands for _____.
D. Circle the greatest amount. 267,000 762,000 627,000
E. Write the smallest 4-digit number. _____

9 Other Important Topics

A. This is a _____. It is worth _____.
B. It takes _____ of them to equal a dollar.
C. One nickel is ($\frac{1}{2}$, $\frac{1}{20}$, $\frac{1}{100}$) of a dollar.
D. Five nickels have the same value as one _____.
E. Two nickels have the same value as one _____.

10 Rulers

A is at _____. B is at _____. C is at _____. D is at _____. Put E at $4\frac{1}{8}$.



Name:_____ Date: _____

Beekeepers

Dan and Judy Harvey

Dan Harvey gets stung by a bee at least once a day. According to Dan, "The stinger will keep on pumping venom after the bee has flown, so the quicker you get the stinger out the better. Try to scrape the stinger out in the direction it came from."

Fruits and vegetables rely upon bees for pollination, but recent outbreaks of disease have put the critters in peril. Dan and Judy are beekeepers, but they also are bee scientists, working to raise disease-resistant bees without the use of chemicals. Dan explains, "We have about 50 colonies of bees right now. In an average year, a colony will make 100 pounds of honey, while in a good year, we can get 300 pounds per colony."

1. How much honey can Dan and Judy expect to collect in an average year?

2. "How much more honey will we collect in a good year than in an average year?" questions Dan.

According to Dan, "Once collected, we store it [the honey] in barrels that each hold 640 pounds of honey."

3. How many barrels will Dan and Judy need in order to store an average year's honey? (Round to the nearest whole barrel.)

You may use a calculator, but be sure to double check your answers.

Name:_____ Date: _____

Honey weighs 22 ounces per pint. A gallon of water weighs 8 pounds.

4. How many ounces more does a pint of honey weigh than a pint of water? (Hint: Drawing a picture may help.)

"Bees don't like black. That's because their main enemies, skunks and bears, are black. A bear can sit down and eat three whole beehives in one sitting."

Bees live just 6 weeks. During those 6 weeks of summer, the queen bee will lay 1,000 eggs a day. Other than laying eggs, the queen bee doesn't do anything. She doesn't even feed herself. Feeding the queen is left up to nurse bees, who secrete protein-rich royal jelly. How many nurse bees are needed to keep a queen well-fed? "I've had to figure out these equations on my own. You can't just pick up a book and read about this," says Dan.

Some beekeepers say you need a can the size of a corned beef hash can full of bees in order to provide for one queen. A corned beef hash can will hold about a cup of bees, and a cup of bees weighs ¼ pound.

5. When Dan followed this advice, how many pounds of nurse bees did he provide in order to feed 84 queens?

Dan and Judy enjoy their work. Dan concludes, "The world of bees is a subtle, microscopic world. If you don't learn something new every time you go out in the bee yard, you're not looking."

Metric Me

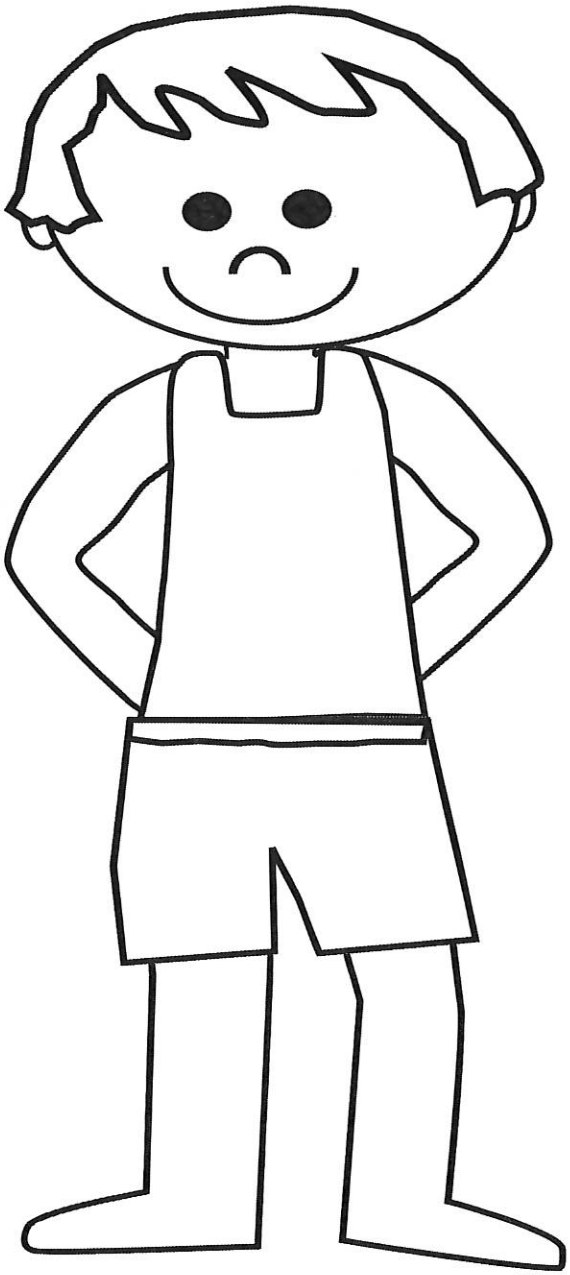
Become an Olympic athlete. Record your stats for Olympic officials. Measure each body part using metric units of length. Color your athlete to represent your favorite country.

Name: _____

Length of hair ☐

Width of smile ☐

Shoulder to shoulder ☐



Eye-corner to corner ☐

Nose– bridge to tip ☐

Elbow to finger ☐

Elbow to wrist ☐

Hip to knee ☐

Hip to ankle ☐

Hip to hip ☐

Knee to ankle ☐

Ankle to toe ☐

Heel to toe ☐

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Drops in the Bucket - Math Level D

Number 6

Name _____ **Score** _____

1 Basic Facts

3 + 3 =	10 – 5 =	2 x 6 =	2 x 3 =	10 ÷ 2 =
4 + 3 =	10 – 4 =	3 x 2 =	9 x 9 =	8 ÷ 4 =
4 + 6 =	15 – 7 =	8 x 8 =	3 x 0 =	9 ÷ 1 =

2 Algorithms

46,854 + 2,508	$40.85 – 5.99	23 x 3	$8\overline{)58}$	3 gal 2 qts + 6 gal 3 qts

3 Estimating Rounding

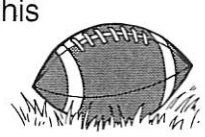
Round to the nearest hundred dollars.

$895 ≈ _____ $96.99 ≈ _____ $18.19 ≈ _____

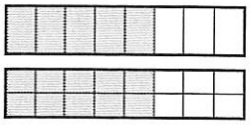
$159 ≈ _____ $264.58 ≈ _____

4 Story Problems

The Jets play 16 football games this season. So far they have 3 wins and 4 losses. If they can win all the rest, how many wins and losses will they have for the season?



5 Equivalent Fractions



_____ = _____

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

$\frac{1}{6} =$

6 Vocabulary Concepts Facts

Know and Spell
month - year
addition
division
pound - ounce
ton
product - sum

A. In 3/4 the numerator is ___. (3, 4, 7, 12)
B. In 6x7=42, six and seven are factors. 42 is the _____.
C. There are 7 days in a week and 52 weeks in a _____.
D. Subtraction is the opposite, or inverse, of _____.
E. The abbreviation for _____ is *lb*; for _____ is *t*.

7 Fractional Parts

$\frac{1}{5}$ of 20 $\frac{1}{5}$ of 35 $\frac{1}{5}$ of 25 $\frac{1}{5}$ of 10 $\frac{1}{5}$ of 500

8 Place Value Numeration

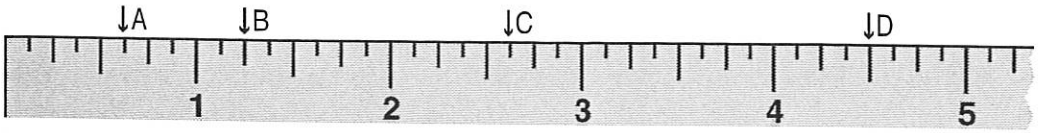
A. What is one more than 9,999? _____
B. Write four thousand, six hundred nine. _____
C. Complete this. 50,873 = _____ + _____ + _____ + ____
D. Circle the greatest amount. 49,000 40,900 94,000
E. Write the smallest 3-digit number without a zero. _____

9 Other Important Topics

A. This is a dime. It is worth _____ cents.
B. It takes _____ dimes to make a dollar.
C. A dime is 15¢ less than a _____.
D. What is the value of 6 dimes? _____
E. If you get half of 10 dimes, you get _____ cents.

10 Rulers

A is at _____. B is at _____. C is at _____. D is at _____. Put E at $5\frac{1}{4}$.



Best Measuring Units

Name: _____ Date: _____

Circle the estimate that would work best for measuring each object.

(1) A desk stapler

9 ounces 9 pounds

(2) A bar of soap

69 meters 69 millimeters

(3) The length of your arm

22 inches 22 miles

(4) The string needed to fly a kite

200 centimeters 200 meters

(5) The length of a lizard

100 millimeters 100 meters

(6) A goldfish

1 ounces 1 pounds

(7) A trip on a passenter jet

464 yards 464 miles

(8) A can of soda

10 gallons 10 fluid ounces

(9) The diameter of the Earth

12,756 meters 12,756 kilometers

(10) The height of your desk

26 inches 26 miles

(11) The distance to the moon

370,000 kilometers 370,000 meters

(12) Your school's playground

136 miles 136 yards

(13) A flagpole

6 meters 6 kilometers

(14) The gas in a car's tank

35 milliliters 35 liters

(15) A stop sign

40 centimeters 40 meters

(16) A loaf of bread

10 inches 10 miles

(17) The width of your shoe

9 meters 9 centimeters

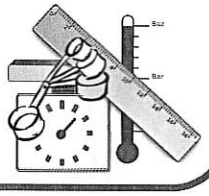
(18) A tunnel through a mountain

80 meters 80 centimeters

Measurement

1

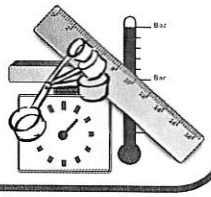
Casey has 2½ yards of red ribbon. She needs to cut pieces that are 4 inches long. How many pieces of ribbon will she get?



Measurement

2

Andrew and Sarah are having a lemonade stand. They have made 3 quarts of lemonade. The paper cups they have each hold ¾ of a cup. How many paper cups of lemonade will they be able to fill?

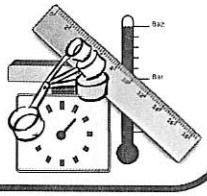


Measurement

3

Monday:	64°
Tuesday:	68°
Wednesday:	71°
Thursday:	77 °
Friday:	76°
Saturday:	82°
Sunday:	80°

What was the <u>average</u> temperature for the week?

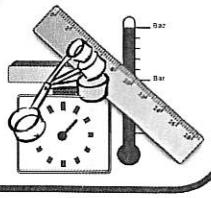


Measurement

4

Marcella weighs 7 pounds more than Hannah. Hannah weighs three pounds less than Susan. Susan weighs 84 pounds.

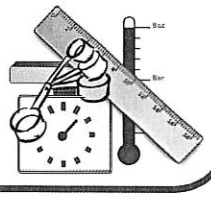
How much does Marcella weigh?



Measurement

5

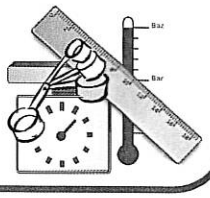
Tony walks ⅓ of a mile to school each day. He also walks home from school. How many miles will he have walked in one five-day school week?



Measurement

6

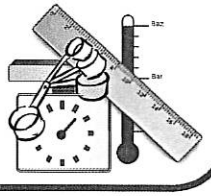
A jar of pennies weighs 50 ounces. If the number of pennies inside the jar is doubled, the jar of pennies will weigh 92 ounces. How much does the jar weigh?



Measurement

7

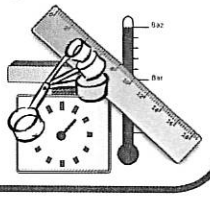
Vincent is sick. He has a temperature of 102.4°. Normal body temperature is 98.6°. How much higher is Vincent's temperature than normal?



Measurement

8

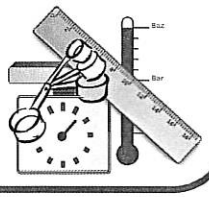
Carl has three dogs. Spot weighs 27 pounds. Rascal weighs 6 pounds more than Fluffy. Fluffy weighs 8 pounds more than Spot. How much do all three dogs weigh together?



Measurement

9

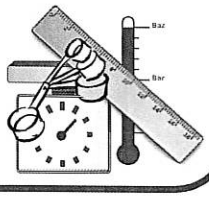
On a map one inch is equal to 125 miles. There are six inches between Happyville and Glumtown. How many miles are between the two towns?



Measurement

10

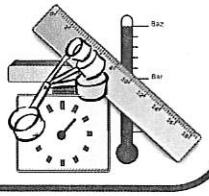
Jake is making waffles. His recipe calls for ¼ cup of sugar, but Jake cannot find the measuring cups anywhere. The only measuring spoon he can find is for ½ a teaspoon. How many ½ teaspoons of sugar will Jake need to make the waffles?



Measurement

11

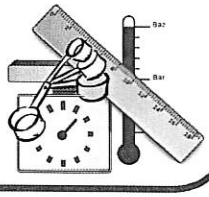
An African elephant drinks about 42 gallons of water each day. How many pints of water does an African elephant drink in a week?



Measurement

12

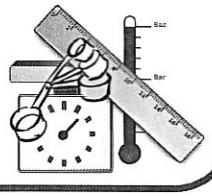
An African Elephant eats about 600 pounds of food a day. How many days will it take an African Elephant to eat nine tons of food?



Measurement

13

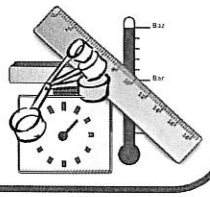
Brooke has a flower bed that is 3 feet wide by 7 feet long. She has decided to divide her bed into 1 foot squares and plant three tulip bulbs in each square. How many tulip bulbs will she need?



Measurement

14

Desmond is making tropical punch popsicles. It takes 4 ounces of juice to make one popsicle. Desmond has one quart of juice. How many popsicles can Desmond make?

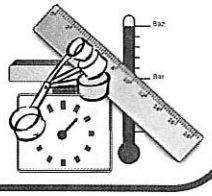


Measurement

15

Which of these is the best buy for apple juice?

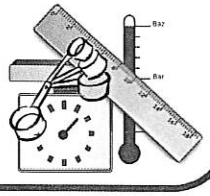
An 8 ounce can for $.65
A 16 ounce can for $1.25
A 32 ounce can for $2.85



Measurement

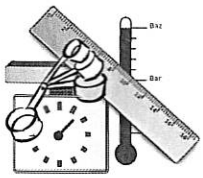
16

Mike has a square brownie with sides that are each five inches long. He cuts the brownie in half to share with a friend. What is the <u>area</u> of each brownie half?



Name _____

Measurement Answer Sheet



Use this sheet to record your Measurement Task Card answers. Remember to include the measurement unit in your answer.

1.	9.
2.	10.
3.	11.
4.	12.
5.	13.
6.	14.
7.	15.
8.	16.