



Start time: \_\_\_\_\_



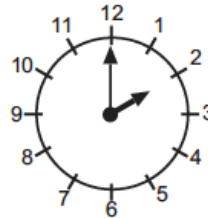
Practicing Math Kangaroo

1

11. Today Betty added her age and her sister's age and obtained 10 as the sum. What will the sum of their ages be after one year?

- (A) 5                      (B) 10                      (C) 11                      (D) 12                      (E) 20

12. The clock shows the time when Stephen leaves his school. School lunch starts 3 hours



before school ends. At what time does lunch start?

- (A) 1                      (B) 2                      (C) 5                      (D) 11                      (E) 12

13. A dragon has 3 heads. Every time a hero cuts off 1 head, 3 new heads emerge. The hero cuts 1 head off and then he cuts 1 off head again. How many heads does the dragon have now?

- (A) 4                      (B) 5                      (C) 6                      (D) 7                      (E) 8

2

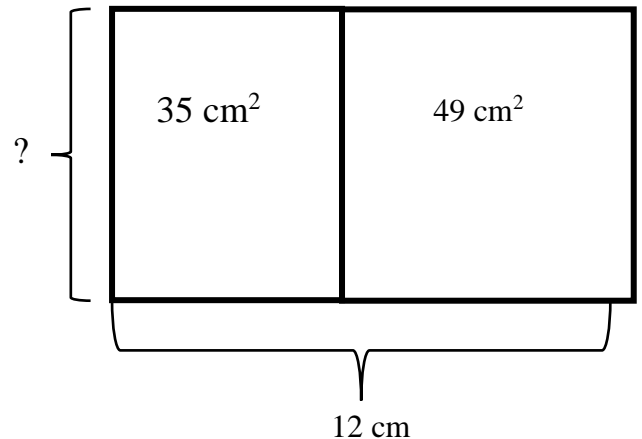
On the drawing you see a rectangle and a square.  
If you know the areas of both shapes, find the length of unknown side.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Report the time you spent: \_\_\_\_\_



3

The number of students who likes ice cream and chocolate are given on the diagram:

How many students like ice cream?

Answer: \_\_\_\_\_

How many students like chocolate?

Answer: \_\_\_\_\_

How many students like both ice cream and chocolate?

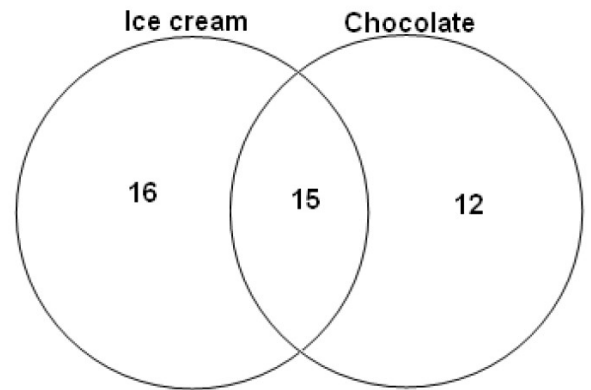
Answer: \_\_\_\_\_

How many students like only ice cream?

Answer: \_\_\_\_\_

How many students like only chocolate?

Answer: \_\_\_\_\_



4

Fill in the empty cells.

Subtraction:

X	437	518		244		721	967
Y	84		150	135	205		169
X-Y		92	73		38	125	

Division:

X	45	49		72	56		28
Y		7	6		7	3	4
X÷Y	9		7	8		9	

Addition:

X	643		49		762	518	253
Y	79	98		125	39	67	
X+Y		518	407	538			841

Multiplication:

X	8	6	4	3	7	5
Y			9		9	
X × Y	40	42		21		

5

Solve the following equations and check your answers:

$$x \div 16 + 75 = 81$$

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$$53 - x \times 7 = 39$$

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6

Compare, using  $<$ ,  $>$  and  $=$

$$48 + 36 + 14 \dots 48 + (36 + 14)$$

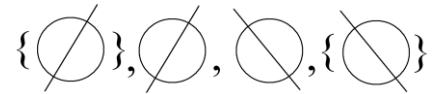
$$73 - 17 + 29 \dots 73 - (17 + 29)$$

$$81 \div 9 \times 4 \dots 81 \times 4 \div 9$$

$$12 \div 6 \times 5 \dots 12 \times 5 \div 6$$

7

Find the correct notation for an empty set. Cross out all other notations.



8

Enter a missed number:

$$27 \div \underline{\quad} = 9$$

$$\underline{\quad} \div 3 = 7$$

$$\underline{\quad} \div 6 = 3$$

$$16 \div \underline{\quad} = 8$$

$$\underline{\quad} \div 2 = 11$$

$$\underline{\quad} \div 5 = 4$$

$$10 \div \underline{\quad} = 2$$

$$\underline{\quad} \div 4 = 4$$

$$\underline{\quad} \div 7 = 3$$

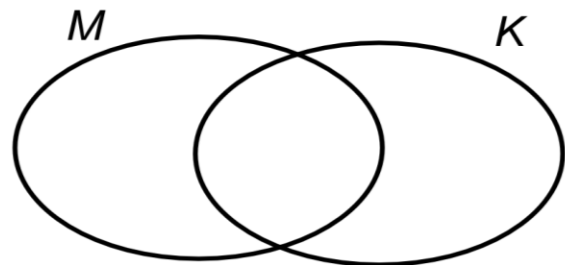
9

Consider sets  $M$  and  $K$ . By using  $\{ \}$ , define the elements of the set  $M \cap K$ . Mark the elements of the sets  $M$  and  $K$  on the Venn diagram and trace with a colored pencil the set  $M \cap K$ .

a) \_\_\_\_\_

$$M = \{ 15, 25, 30, 40 \}$$

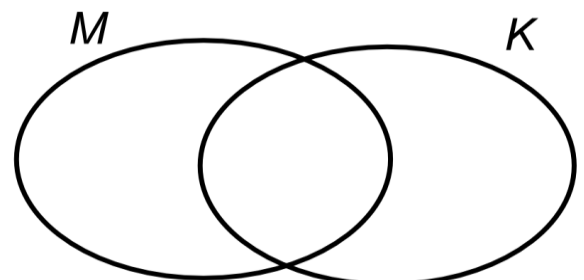
$$K = \{ 23, 24, 25 \}$$



b) \_\_\_\_\_

$$M = \{ \star, \square, a, b \}$$

$$K = \{ \square, a, d \}$$

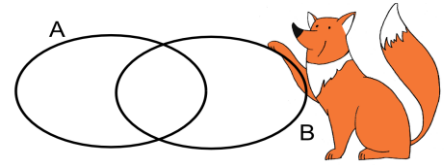


10

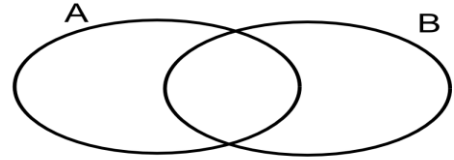


Place 4 elements {x, y, z, q} on the diagrams of the sets A and B so that there would be:

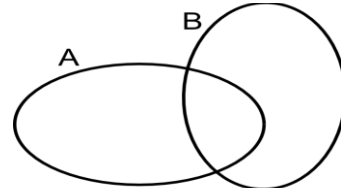
a) 3 elements in each set;



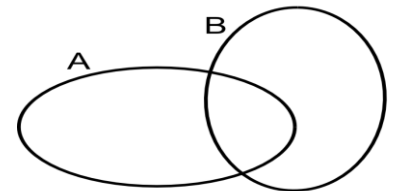
b) 2 elements in one set and 4 elements in the other;



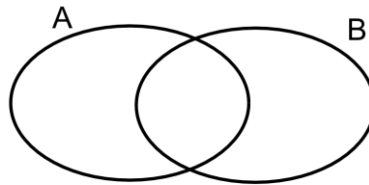
c) 4 elements in one set and 3 elements in the other;



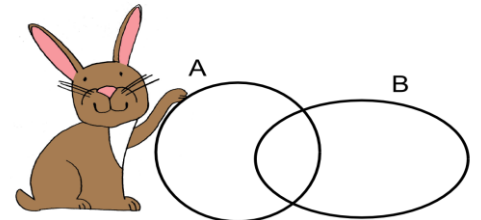
d) 0 elements in one set and 4 elements in the other;



e) 4 elements in each set;



f) 2 elements in each set.



11

Solve the problems:

- a) How many 5cm pieces of string you can cut out of a piece of string 15 cm long? \_\_\_\_\_
- b) Chocolate eggs are put in the boxes of 2. How many boxes would you need to buy to get 6 eggs?  
\_\_\_\_\_
- c) One cake tray holds 2 cupcakes. You made 22 cupcakes. How many trays did you use?  
\_\_\_\_\_

12

Calculate using the multiplication properties. Show your work.

$2 \times 7 \times 5 \times 9 \times 2 \times 5 =$  \_\_\_\_\_

$8 \times 5 \times 25 \times 7 =$  \_\_\_\_\_

$4 \times 85 \times 2 \times 5 \times 25 =$  \_\_\_\_\_

13

True or False:

810 is divisible by 9 \_\_\_\_

605 is divisible by 5 \_\_\_\_

820 is divisible by 4 \_\_\_\_

800 is divisible by 4 \_\_\_\_

360 is divisible by 6 \_\_\_\_

240 is divisible by 4 \_\_\_\_

360 is divisible by 30 \_\_\_\_

720 is divisible by 90 \_\_\_\_

14

Which of the following is an infinite set? \_\_\_\_\_

a) {states in the US}

b) {vowels}

c) {primary colors}

d) {whole numbers}

15

Which of the following is an empty set? \_\_\_\_\_

a) {cars with 10 doors}

b) {cats with 15 legs}

c) {months with 32 days}

d) All of the above

16

Calculate and write down the answer with a remainder where needed:

$$48 \div 3 = \underline{\hspace{2cm}} \quad 48 \div 4 = \underline{\hspace{2cm}} \quad 48 \div 5 = \underline{\hspace{2cm}} \quad 48 \div 6 = \underline{\hspace{2cm}}$$

17

Find quotient and remainder from the division of different numbers by 5.

$$11 \div 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$17 \div 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$29 \div 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$36 \div 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$47 \div 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$63 \div 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

18

Answer the questions (fill in the brackets):

a) The sum of the least three-digit number and the least three-digit number is a ( ) - digit number.

b) The sum of the greatest three-digit number and the greatest three-digit number is a ( ) - digit number.

c) The sum of 2 three-digit numbers can be a ( ) - digit number or a ( ) - digit number.