Math 3 Homework 20

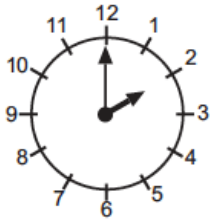
Practicing Math Kangaroo

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

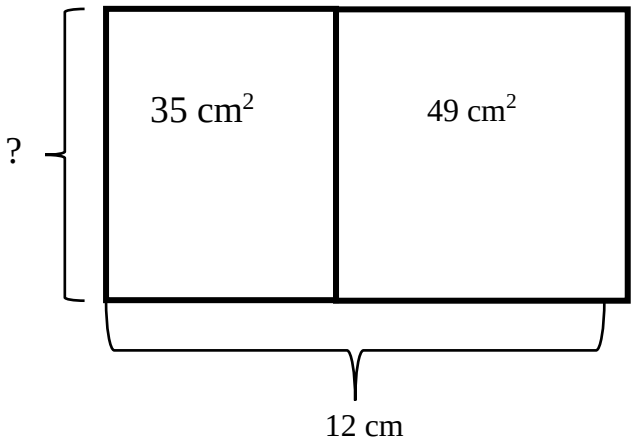
13. A dragon has 3 heads. Every time a hero cuts off 1 head, 3 new heads emerge. The hero cuts 1 head off and then he cuts 1 off head again. How many heads does the dragon have now?

(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?

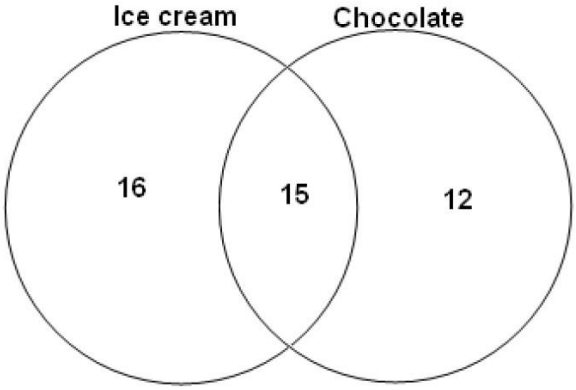
Answer: _____

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:

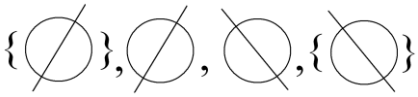
$x \div 16 + 75 = 81$ $53 - x \times 7 = 39$

6. Compare, using <, > and =

48 + 36 + 14 … 48 + (36 + 14) 73 – 17 + 29 … 73 – (17 + 29)

81 ÷ 9 × 4 … 81 × 4 ÷ 9 12 ÷ 6 × 5 … 12 × 5 ÷6

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



8. Enter a missed number:

27 ÷___ = 9 ___ ÷ 3 = 7 ___ ÷ 6 = 3

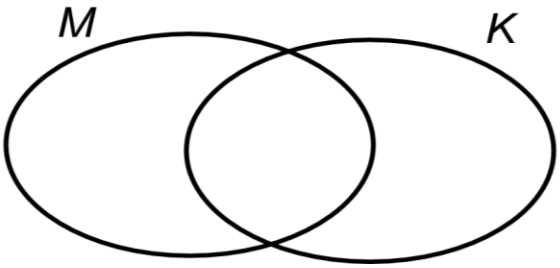
16 ÷ __ = 8 ___ ÷ 2 = 11 ___ ÷ 5 = 4

10 ÷ __ = 2 ___ ÷ 4 = 4 ___ ÷ 7 = 3

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

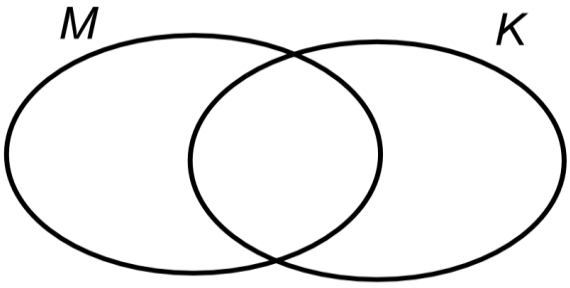
a) _____

M = { 15, 25, 30, 40 }
K = { 23, 24, 25 }



b) _____

M = { ☆ , □ , a , b }
K = { □ , a, d }

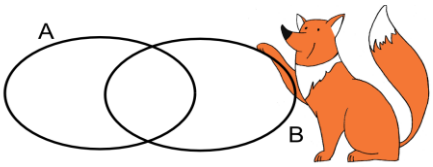


10

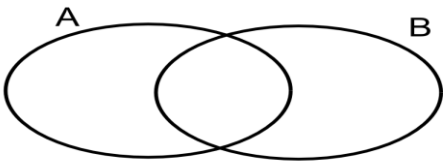
Independent work

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

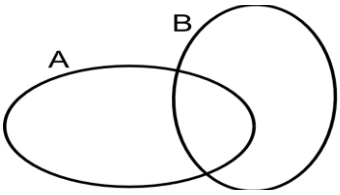
a) 3 elements in each set;



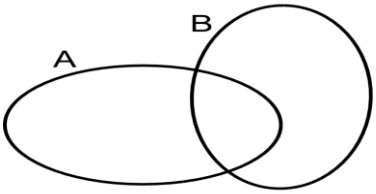
b) 2 elements in one set and 4 elements in the other;



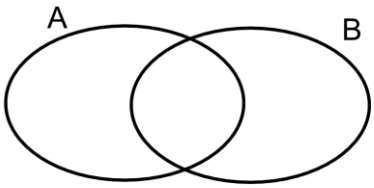
c) 4 elements in one set and 3 elements in the other;



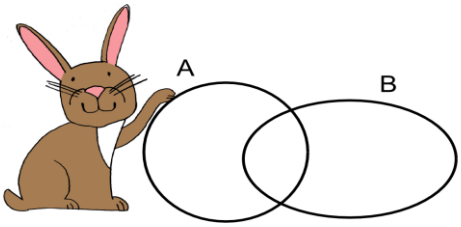
d) 0 elements in one set and 4 elements in the other;



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 ___
820 is divisible by 4 ___
360 is divisible by 6 ___
360 is divisible by 30 ____
605 is divisible by 5 ____
800 is divisible by 4 ____
240 is divisible by 4 ____
720 is divisible by 90 ___

14 Which of the following is an infinite set? _____

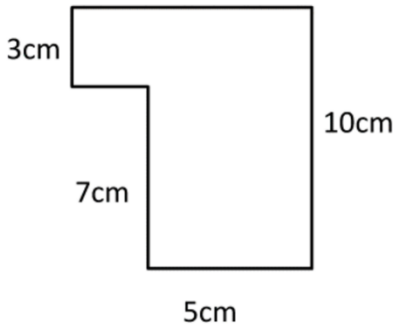
a) {states in the US}
b) {vowels}
c) {primary colors}
d) {whole numbers}

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

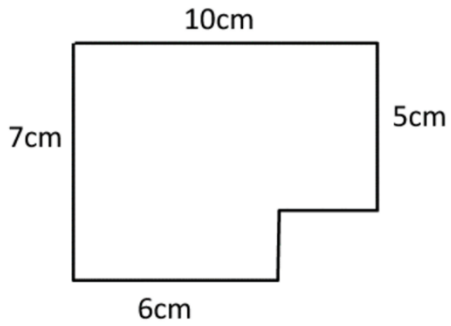
16 Find the area of the following shapes by dividing each shape in rectangles or by adding a rectangle in order to get one bigger rectangle.

1)



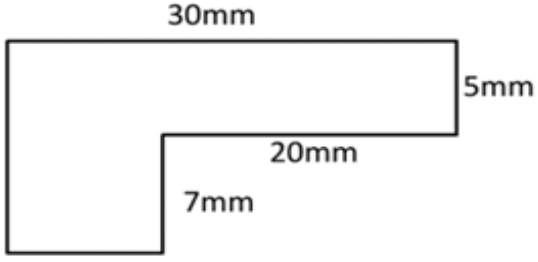
Area = _____ square cm (cm^2)

2)



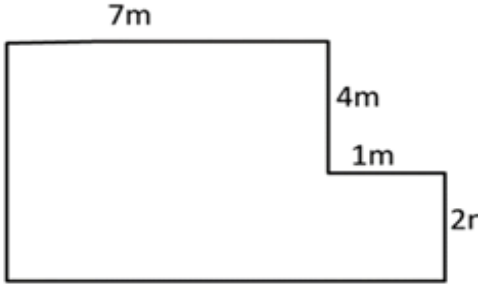
Area = _____square cm (cm^2)

3)



Area = _____ square mm (mm^2)

4)



Area = _____square m (m^2)