

# The Swot Shop

## Maths Talent Program

### Year 2

### Maths Talent E

### Sample Lesson with Teacher Instructions

# The Swot Shop

This is a sample lesson from the **Maths Talent Program – Maths Talent E suited for Year 2 students**. It includes basic teacher instructions. This lesson runs for 60 minutes.

All Swot Shop Programs are developed specifically for bright, gifted and motivated learners.

The Maths Talent Program is conducted in ability streamed classes and taught by a qualified and experienced teacher.

The program is developed to enrich, enhance and complement the learning that students experience in school settings.

To learn more please contact us on (02) 9634 2000.

# MATHS TALENT E

## Sample Lesson

### Maths Quiz

Allow students five minutes to complete the quiz (try to minimise copying). Have students swap booklets and mark each other's work with a tick or cross only. The booklets are to be returned to their owners and the questions must be explained with relevant working and/or diagrams on the whiteboard. Students must show, in red pen, the correct answer and working for any quiz answers where they made an error. Ensure that students are given an opportunity to learn from their mistakes and ask for help with questions they did not understand. The results are to be recorded on the Maths Quiz sheet in the back of the roll.

Last week's homework solutions are in students' lesson booklets for students to correct at home.

### Puzzles with Matchsticks

Distribute one container of matchsticks per pair of students. Discuss and demonstrate how to use matches to make the squares shown on the worksheet. Work through the puzzles with the whole class, providing guidance where required. At the end of the activity, distribute the solution sheet to students who need it.

### Venn Diagrams

Complete Questions 1 and 2 with the class and then encourage the students to work independently to complete Questions 3 and 4. Discuss and correct in class. Discuss and complete Question 5 with the class and then encourage the students to work independently to complete Question 6. Discuss and complete Question 7 with the class.

### Homework: Venn Diagrams

Work through the first question as a class to ensure all students understand the homework task.

<b>Equipment:</b>
-------------------

- |   |
|---|
| <ul style="list-style-type: none"><li>• matchsticks</li></ul> |
|---|



Score:  
/ 5

## Maths Quiz

Write the answers to the following questions in the space provided. Where necessary, you should do your working out on this sheet.

1.	Write the number 10 less than 40.	
2.	Write the time one hour after 7:25 pm.	
3.	What is the value of the underlined digit?  7 <u>3</u> 4	
4.	How many diagonals has a polygon with six sides?	
5.	If I can buy 5 apples for \$2.00, how much would I pay for 4 apples?	

# PUZZLES WITH MATCHSTICKS

You can make two squares with

eight matchsticks  or seven matchsticks 

You can make three squares with

twelve matchsticks   
or eleven matchsticks   
or ten matchsticks 

*Make the following shapes:*

1. *Make 4 squares with*

16 matchsticks

15 matchsticks

14 matchsticks

12 matchsticks

2. *Make 5 squares with*

18 matchsticks

16 matchsticks

3. *Make 2 triangles with*

6 matchsticks

5 matchsticks

4. *Make 3 triangles with*

9 matchsticks

7 matchsticks

5. *Make 4 triangles with*

10 matchsticks

9 matchsticks

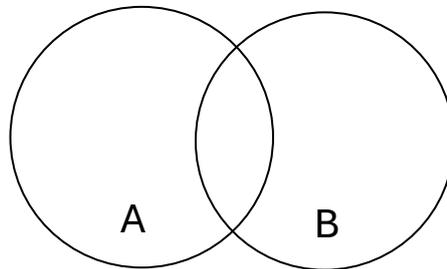
6. *Make 5 triangles with*

12 matchsticks

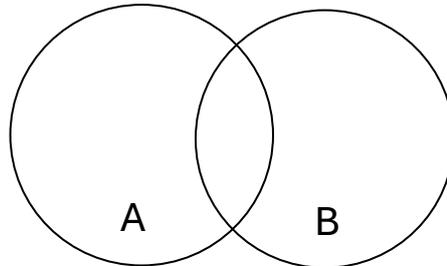
11 matchsticks

## Venn Diagrams

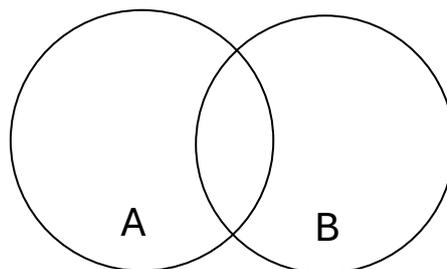
1. There are pictures of horses in the circles on the wall of the old cave. There are 8 horses in circle A and 6 horses in circle B. Two of the horses are in both circles A and B. How many horses are in each of the circles?



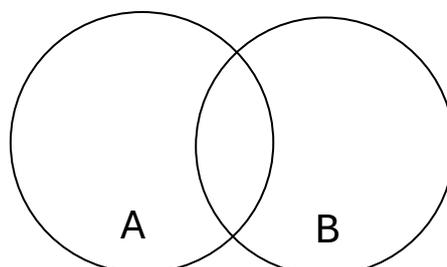
2. There are pictures of cows in the circles on the wall of the old cave. There are 14 cows in Circle A and 11 cows in Circle B. Five of the cows are in both circles A and B. How many cows are in each of the circles?



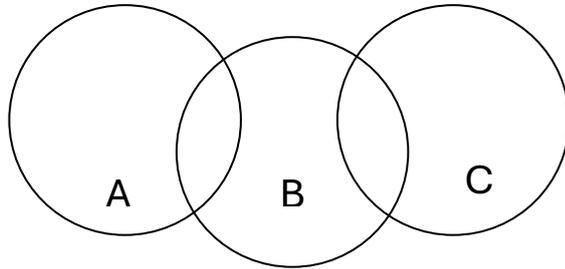
3. There are pictures of cats in the circles on the wall of the old cave. There are 17 cats in Circle A and 14 cats in Circle B. Seven of the cats are in both circles A and B. How many cats are in each of the circles?



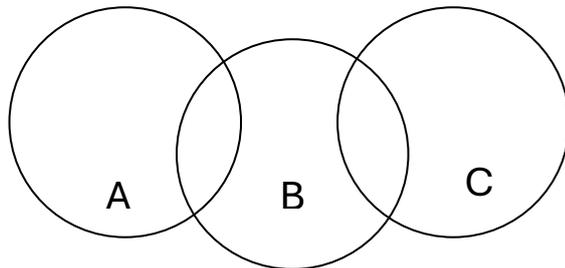
4. There are pictures of dogs in the circles on the wall of the old cave. There are 20 dogs in Circle A and 19 dogs in Circle B. Nine of the dogs are in both circles A and B. How many dogs are in each of the circles?



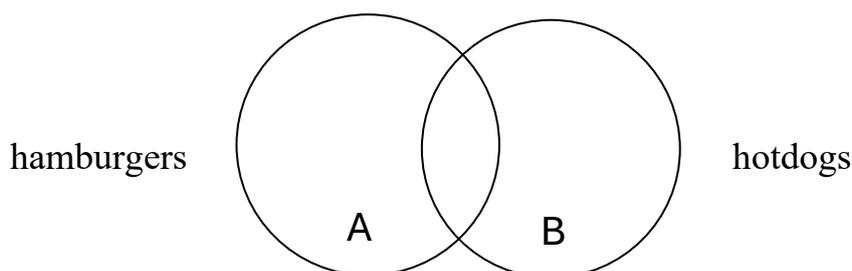
5. There are pictures of deer in the circles on the wall of the old cave. There are 14 deer in Circle A, 16 deer in Circle B and 7 deer in Circle C. Five of the deer are in both circles A and B. Four of the deer are in both circles B and C. How many deer are in each of the circles?



6. There are pictures of birds in the circles on the wall of the old cave. There are 12 birds in Circle A, 14 birds in Circle B and 9 birds in Circle C. Seven of the birds are in both circles A and B. Three of the birds are in circles B and C. How many birds are in each of the circles?



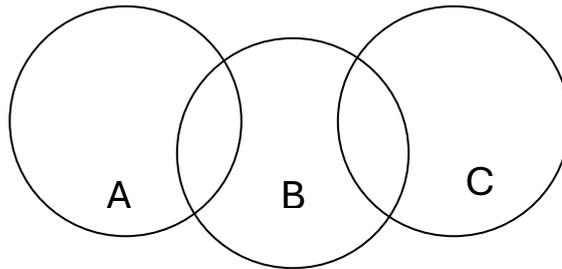
7. The children played games and ate hamburgers and hotdogs at the school picnic. 27 children ate hamburgers and 25 children ate hot dogs. 12 of these children ate both hamburgers and hotdogs. How many children were at the picnic?



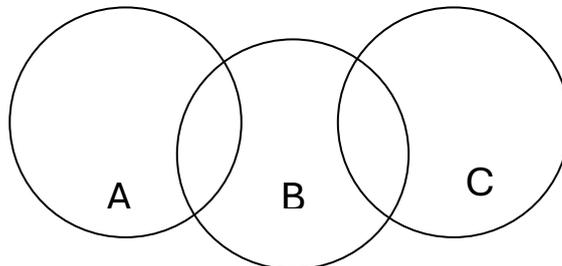
## VENN DIAGRAMS

### HOMEWORK

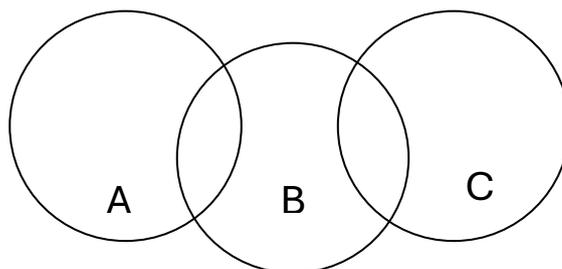
1. There are pictures of snakes in the circles on the wall of the old cave. There are 10 snakes in circle A, 20 snakes in circle B and 13 snakes in circle C. Six of the snakes are in both circles A and B. Five of the snakes are in both circles B and C. How many snakes are in each of the circles?



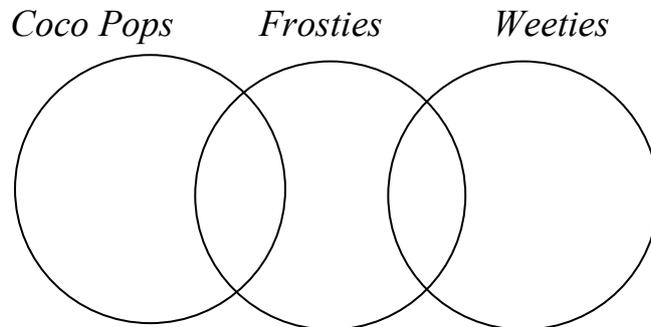
2. There are pictures of horses in the circles on the wall of the old cave. There are 25 horses in circle A, 46 horses in circle B and 40 horses in circle C. Fifteen of the horses are in both circles A and B. Eleven of the horses are in both circles B and C. How many horses are in each of the circles?



3. There are pictures of cows in the circles on the wall of the old cave. There are 42 cows in circle A, 71 cows in circle B and 45 cows in circle C. Twelve of the cows are in both circles A and B. Seventeen of the cows are in both circles B and C. How many cows are in each of the circles?



4. Mary did a survey to find out if people had tasted her three favourite cereals. She found that 10 people had tasted Coco Pops, 18 people had tasted Frosties and 8 people had tasted Weeties. There were 7 people who had tasted Coco Pops and Frosties and 2 people who had tasted Frosties and Weeties. How many people took part in Mary's survey?



5. The spaceship X-tron offered free trips to Numba, Tronex and Sentra. 24 robotons visited Numba, 34 robotons visited Tronex and 23 robotons visited Sentra. 14 of these robotrons visited both Numba and Tronex and 11 robotons visited both Tronex and Sentra. How many robotrons took advantage of the free trips on X-tron?

