

# Mathswell 2017 Y9 Problem Solving Part 1

School: \_\_\_\_\_ Students 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

TOTAL 

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Time allowed: 30 minutes

**Instructions**

*Scrap paper and calculators are allowed.  
 The use of the internet is not allowed.*

1. One team member collects the first question from the marker.
2. The group is allowed to work on it for as long as they wish.
3. When they have a solution they write it on the question sheet and hand to the marker.
4. The marker is allowed to give two responses:  
 Either CORRECT in which case the next question is given to the team  
 Or INCORRECT in which case the team decides whether to try again or pass and ask for the next question.

If a question has 2 or more parts to the answer the marker can not indicate which parts of the answer are correct if the full correct answer has not been given.

5. Two attempts only per question are permitted.
6. Once passed, a the team can not come back to answer a passed question.
7. The marker puts a tick, cross or *P* (for pass) in the appropriate column for each question.
8. In the event of a draw we will go back to see which team had the most correct first attempts
9. When time is up, tally up the number of correct answers (1st or 2nd attempts) and write the total above. Get the team to write their names above. RETURN this sheet to the organiser. The question sheets can stay with the team.

	Answer	1st	2nd
1	504 kg		
2	17 m		
3	7		
4	306 toes		
5	2 kg		
6	299		
7	2 hours		
8	625		
9	18		
10	240 cm <sup>2</sup>		
11	7		
12	15		
13	20 kg		

# Mathswell 2017 Y9 Problem Solving Part 2

School: \_\_\_\_\_ Students 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

TOTAL

Time allowed: 30 minutes

## Instructions

*Scrap paper and calculators are allowed.  
 The use of the internet is not allowed.*

1. One team member collects the first question from the marker.
  2. The group is allowed to work on it for as long as they wish.
  3. When they have a solution they write it on the question sheet and hand to the marker.
  4. The marker is allowed to give two responses:  
 Either CORRECT in which case the next question is given to the team  
 Or INCORRECT in which case the team decides whether to try again  
 or pass and ask for the next question.
- If a question has 2 or more parts to the answer the marker can not indicate which parts of the answer are correct if the full correct answer has not been given.
5. Two attempts only per question are permitted.
  6. Once passed, a the team can not come back to answer a passed question.
  7. The marker puts a tick, cross or *P* (for pass) in the appropriate column for each question.
  8. In the event of a draw we will go back to see which team had the most correct first attempts
  9. When time is up, tally up the number of correct answers (1st or 2nd attempts) and write the total above. Get the team to write their names above. RETURN this sheet to the organiser. The question sheets can stay with the team.

	Answer	1st	2nd
14	(6,5)		
15	0, -1, -2, -3		
16	71		
17	157.5 degrees or 202.5 degrees		
18	120 m		
19	11		
20	36 degrees		
21	80		
22	9 days		
23	4, 9, 25, 49		
24	1		
25	98		
26	1000		