2025 Maths Games Junior - Years 5 & 6
Preparation Kit
Teaching Problem Solving

Rationale and Syllabus Outcomes

Mathematics is a creative subject requiring abstract thought. Children naturally reason and use creative strategies when they seek patterns and relationships that will enable them to solve challenging unfamiliar problems. The generalisations they make can then be used to solve problems with the same mathematical structure.

Through the process of problem solving and class discussion of the strategies used, children will also develop skills they can use when faced with more unfamiliar problems, so by Years 5-6 they will be able to:

- Describe and represent mathematical situations in a variety of ways
- Select and apply appropriate problem-solving strategies in undertaking investigations
- Give valid reasons for supporting one possible solution over another.

Competition problems can often be solved in many different ways. For this reason, different methods of solution will be suggested for each problem, with particular emphasis in each of the five kits on selected problem solving strategies.

This Preparation Kit focuses on:

Guess, Check and Refine

Draw a Diagram

Set Yellow

Problems with fully worked solutions.

Set Green

Problems similar to Set Yellow, but with fewer difficult elements.

Preparation Tasks

Tasks designed to encourage discussion and collaboration in problem solving.

Set Orange

More challenging problems to extend students.

The problems in the preparation and resource kits are based on questions from Maths Olympiad and Maths Games competitions in previous years. Further questions and solution methods can be found in the APSMO resource book "Building Confidence in Maths Problem Solving" available from www.apsmo.edu.au.

Please click on this video link to watch an introduction to **2025 Maths Games Junior**.

How to use these problems

At the start of the lesson, present the problem and ask the students to think about it. Encourage students to try to solve it in any way they like. When the students have had enough time to consider their solutions, ask them to describe or present their methods, taking particular note of different ways of arriving at the same solution.

Each question includes at least one solution method that the majority of students should be able to follow. By participating in lessons that demonstrate achievable problem solving techniques, students may gain increased confidence in their own ability to address unfamiliar problems.

Finally, the consideration of different solution methods is fundamental to the students' development as effective and sophisticated problem solvers. Even when students have solved a problem to their own satisfaction, it is important to expose them to other methods and encourage them to judge whether or not the other methods are more efficient.

Preparation Kit

Guess, Check and Refine

This involves making a reasonable guess of the answer, and checking it against the conditions of the problem. An incorrect guess may provide more information that may lead to the answer.

Draw a Diagram

A diagram may reveal information that may not be obvious just by reading the problem.

It is also useful for keeping track of where the student is up to in a multi-step problem.

Resource Kit 1

Find a Pattern

A frequently used problem solving strategy is that of recognising and extending a pattern.

Students can often simplify a difficult problem by identifying a pattern in the problem situation.

Build a Table

A table displays information so that it is easily located and understood.

A table is an excellent way to record data so the student doesn't have to repeat their efforts.

Resource Kit 2

Work Backwards

If a problem describes a procedure and then specifies the final result, this method usually makes the problem much easier to solve.

Make an Organised List

Listing every possibility in an organised way is an important tool.

How students organise the data often reveals additional information.

Resource Kit 3

Solve a Simpler Related Problem

Many hard problems are actually simpler problems that have been extended to larger numbers.

Patterns can sometimes be identified by trying the problem with smaller numbers.

Eliminate All But One Possibility

Deciding what a quantity is not, can narrow the field to a very small number of possibilities.

These can then be tested against the conditions of the original problem.

Resource Kit 4

Convert to a More Convenient Form

There are times when changing some of the conditions of a problem makes a solution clearer or more convenient.

Divide a Complex Shape

Sometimes it is possible to divide an unusual shape into two or more common shapes that are easier to work with.

Set Yellow

P.1) Shannon and Holly shared a new packet of lead pencils equally.
Holly gave two of her pencils to her little sister.
Shannon then had three times as many pencils as Holly.
How many pencils were there in the packet?

P.2) Gina is taller than Henry but shorter than Jennie.
Ivan is taller than Katie but shorter than Gina.
Who is the tallest of these five people?

P.3) My book is open. I see two pages.
The sum of the page numbers is 245.
What is the next page number?

P.4) To send a package overseas, I affixed seven stamps, to give a total of $23 postage.
I only used $5 and $2 stamps.
How many $2 stamps did I use?

Maths Games Example Solution P.1 - Yellow

Shannon and Holly shared a new packet of lead pencils equally.

Holly gave two of her pencils to her little sister. Shannon then had three times as many pencils as Holly.

How many pencils were there in the packet?

Strategy 1: Guess, Check and Refine

Let's guess there were **10** pencils. That's a number they can share equally.

After sharing equally, Shannon has **5** and Holly has **5**.

Holly gave **2** to her sister, so she has **5 – 2 = 3** pencils.

Total	Shannon	Holly	3 × Holly
10	5	5 – 2 = 3	3 × 3 = 9

Shannon is supposed to have **3** times as many pencils as Holly, so Shannon should have **3 × 3 = 9** pencils.

Shannon has **5** pencils. That's **9 – 5 = 4** fewer than we need to match the question.

Let's guess there were **12** pencils.

After sharing equally, Shannon has **6** and Holly has **6**.

Holly gave **2** to her sister, so she has **6 – 2 = 4** pencils.

Shannon should have **3 × 4 = 12** pencils.

After guessing a larger number of pencils, we got further away from the answer.

Total	Shannon	Holly	3 × Holly
10	5	5 – 2 = 3	3 × 3 = 9
12	6	6 – 2 = 4	3 × 4 = 12

Let's guess there were **6** pencils.

After sharing equally, Shannon has **3** and Holly has **3**.

Holly gave **2** to her sister, so she has **3 – 2 = 1** pencils.

Shannon should have **3 × 1 = 3** pencils.

This matches the question.

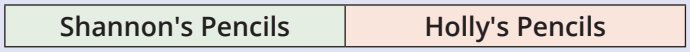
Total	Shannon	Holly	3 × Holly
10	5	5 – 2 = 3	3 × 3 = 9
12	6	6 – 2 = 4	3 × 4 = 12
6	3	3 – 2 = 1	3 × 1 = 3

There were **6** pencils in the packet.

Strategy 2: Draw a Diagram

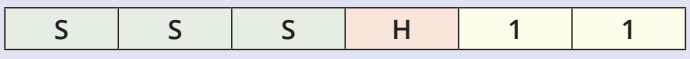
Let's draw a bar to represent the number of pencils there were in the packet.

Shannon and Holly shared the pencils equally.

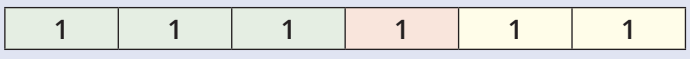


After Holly gave some pencils to her sister, Shannon had three times as many pencils as Holly.

Holly's sister had two pencils.



There were **6** pencils in the packet.



Answer 6

Maths Games Example Solution P.2 - Yellow

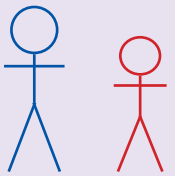
Gina is taller than Henry but shorter than Jennie. Ivan is taller than Katie but shorter than Gina.

Who is the tallest of these five people?

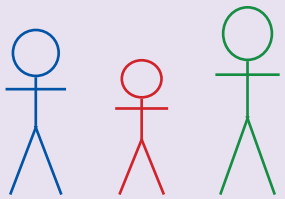
Strategy 1: Draw a Diagram (1)

Let's draw the information we have.

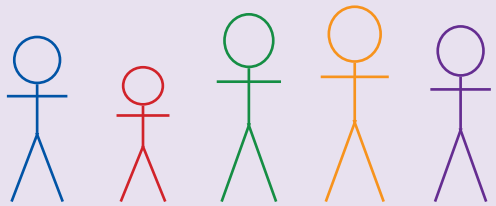
Gina is taller than Henry.



Gina is shorter than Jennie.



Ivan is taller than Katie.

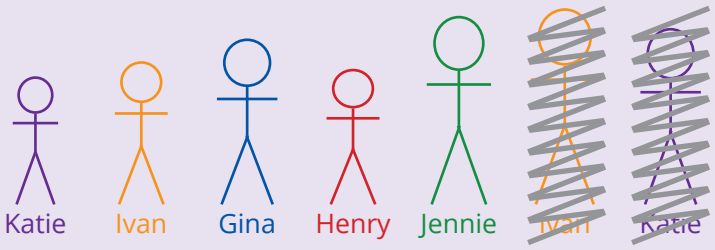


Ivan is shorter than Gina.

That doesn't match our drawing. We have made Ivan taller than Gina.

Let's go back to the step where we draw Ivan, and this time we'll make sure he's shorter than Gina.

We will need to redraw Katie as well, so that she stays shorter than Ivan.



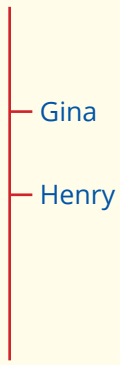
We can see that the tallest person is **Jennie**.

Strategy 2: Draw a Diagram (2)

We just want to find out which person is the tallest.

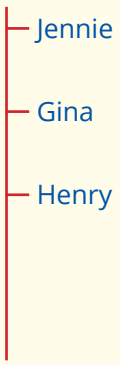
Let's draw a height chart.

We'll start by showing that Gina is taller than Henry.



Gina is the tallest so far.

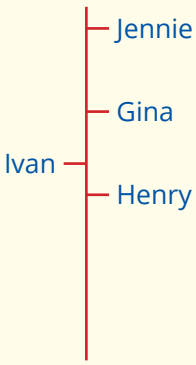
Gina is shorter than Jennie, so Jennie is taller than Gina.



Jennie is the tallest so far.

Ivan is taller than Katie, but shorter than Gina.

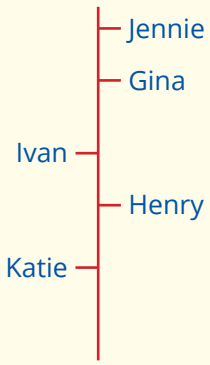
Since Ivan is shorter than Gina, he can't be the tallest.



Jennie is the tallest so far.

Ivan is taller than Katie.

Note that we don't know if Henry is taller than Ivan or Katie, but it doesn't matter for finding out who is tallest.



Jennie is the tallest so far.

The tallest person must be **Jennie**.

Answer **Jennie**

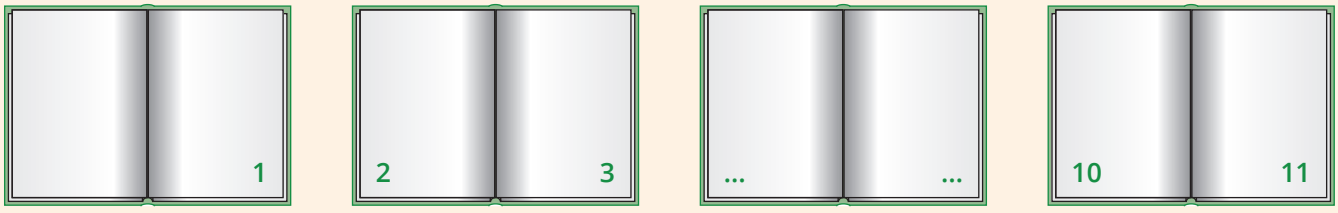
Maths Games Example Solution P.3 - Yellow

My book is open. I see two pages. The sum of the page numbers is 245.

What is the next page number?

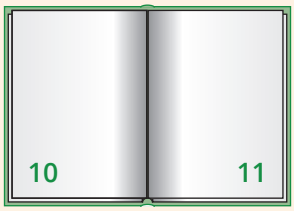
Strategy 1: Guess, Check and Refine

After page 1, any two consecutive pages in a book will have consecutive page numbers.

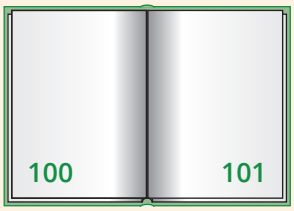


The sum of page numbers 10 and 11 is 10 + 11 = 21.

We want the sum to be 245.

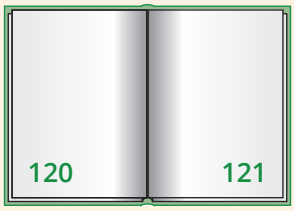


The sum of page numbers 100 and 101 is 100 + 101 = 201, which is much closer to our target sum.



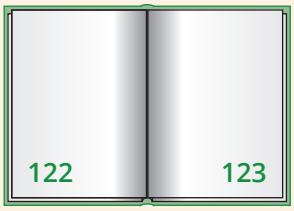
The sum of page numbers 120 and 121 is 120 + 121 = 241.

The sum is is now getting very close to our target.



The sum of page numbers 122 and 123 is 122 + 123 = 245.

This matches the question.



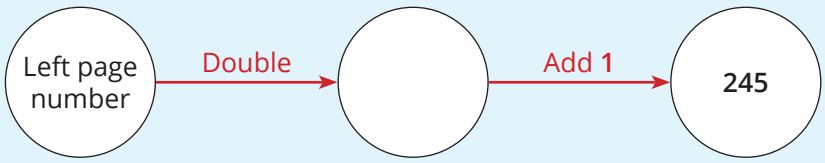
The next page number will be 123 + 1 = **124**.

Strategy 2: Work Backwards

To get the sum, we add a page number to the page number that comes next.

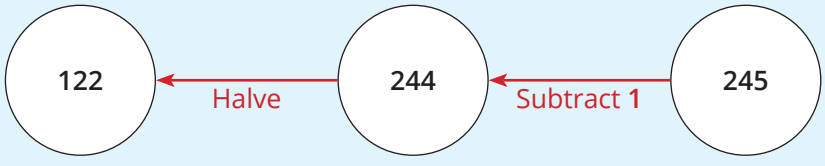
This is the same as:

- Doubling the left page number, then
- Adding 1.



To work out what the left page number must have been, we can work backwards from the sum of **245**, by:

- Subtracting 1, and then
- Halving the result.



The left page number is **122**, so the right page number is **123**.

The next page number will be **124**.

Answer 124

Maths Games Example Solution P.4 - Yellow

To send a package overseas, I affixed seven stamps, to give a total of $23 postage.

I only used $5 and $2 stamps.

How many $2 stamps did I use?

Strategy 1: Guess, Check and Refine (Two Methods)

If there were 2 $2 stamps, then there must have been 7 – 2 = 5 $5 stamps.

In total, that is
2 × $2 + 5 × $5
= $4 + $25 = $29 postage.

$2	$5	Postage
2	5	$29

If there were 3 $2 stamps, then there must have been 7 – 3 = 4 $5 stamps.

In total, that is
3 × $2 + 4 × $5
= $6 + $20 = $26 postage.

$2	$5	Postage
2	5	$29
3	4	$26

If there were 4 $2 stamps, then there must have been 7 – 4 = 3 $5 stamps.

In total, that is
4 × $2 + 3 × $5
= $8 + $15
= $23 postage.

This matches the question.

$2	$5	Postage
2	5	$29
3	4	$26
4	3	$23

I must have used **4 $2 stamps**.

If I used 2 × $2 = $4 worth of $2 stamps, there would have been $23 – $4 = $19 worth of $5 stamps.

19 is not a multiple of 5.

Value of $2 Stamps	Value of $5 Stamps
$4	$19

If I used 3 × $2 = $6 worth of $2 stamps, there would have been $23 – $6 = $17 worth of $5 stamps.

17 is not a multiple of 5.

Value of $2 Stamps	Value of $5 Stamps
$4	$19
$6	$17

If I used 4 × $2 = $8 worth of $2 stamps, there would have been $23 – $8 = $15 worth of $5 stamps.

$15 buys 3 $5 stamps.

In total, I would have used 4 + 3 = 7 stamps.

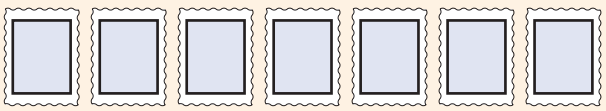
This matches the question.

Value of $2 Stamps	Value of $5 Stamps
$4	$19
$6	$17
$8	$15

I must have used **4 $2 stamps**.

Strategy 2: Draw a Diagram

We begin by drawing the 7 stamps.



Each stamp is worth at least $2.

7 $2 stamps would have a total value of 7 × $2 = $14.

Adding $3 turns one stamp into a 2 + 3 = $5 stamp.

The stamps now have a total value of 14 + 3 = $17.

Adding $3 to two more stamps takes the total to 17 + 3 + 3 = $23.

There must have been **4 $2** stamps.

Answer 4

Set Green

P.1) Holly had some pencils.
She gave two of her pencils to her little sister.
Holly's little sister then had twice as many pencils as Holly.
How many pencils did Holly have to begin with?

P.2) Gina is taller than Henry.
Gina is shorter than Jennie.
Ivan is shorter than Gina.
Ivan is taller than Katie.
Who is the tallest of these five people?

P.3) My book is open. I see two pages.
The sum of the page numbers is 45.
What is the next page number?

P.4) To send a package overseas, I affixed seven stamps, to give a total of $11 postage.
I only used $1 and $2 stamps.
How many $2 stamps did I use?

Preparation Task 1

A) Hayley and Kendall are working on the following problem.

Kendall says, "Chandra's age is an even number."

Highlight the sentence in the question you think Kendall is using to make this claim.

Explain how this information proves Chandra's age is an even number.

> Chandra is twice as old as Nora.
> Nora is 6 years younger than Lian.
> The sum of all their ages is 62.
> How old is Nora?

B) Hayley replied,

"Since Chandra's age is an even number, Nora and Lian's ages must both be odd numbers, or both be even numbers. I can **prove** it to you."

Provide a proof that Hayley could use to show Kendall her reasoning.

C) Kendall says, "Nora's the youngest."

Decide if Kendall is correct, and **explain** why you think this.

D) Hayley decides to guess Nora's age and then check to see if it results in a total sum of **62**.

She guesses that Nora is **7**.

Evaluate her guess. **Discuss** with your partner if you'd start higher or lower.

Work together to find Nora's age and solve the problem.

Maths Games Example Solution - Preparation Task 1

Chandra is twice as old as Nora. Nora is 6 years younger than Lian.

The sum of all their ages is 62. How old is Nora?

Strategy 1: Guess, Check and Refine

Let's guess that Nora is currently 10 years old.
Then Chandra would be 2 × 10 = 20.
Lian would be 10 + 6 = 16.
The sum of all their ages is 10 + 20 + 16 = 46.

Nora's age	10				
Chandra's age	20				
Lian's age	16				
Sum of ages	46				

The sum is meant to be 62.

Let's try a bigger guess.

Let's guess that Nora is currently 20 years old.
Then Chandra would be 2 × 20 = 40.
Lian would be 20 + 6 = 26.
The sum of all their ages is 20 + 40 + 26 = 86.

Nora's age	10	20			
Chandra's age	20	40			
Lian's age	16	26			
Sum of ages	46	86			

Now our sum is greater than 62. Let's try a guess between these two values.

Let's guess that Nora is currently 15 years old.
Then Chandra would be 2 × 15 = 30.
Lian would be 15 + 6 = 21.
The sum of all their ages is 15 + 30 + 21 = 66.

Nora's age	10	20	15		
Chandra's age	20	40	30		
Lian's age	16	26	21		
Sum of ages	46	86	66		

This sum is quite close.
Let's try a guess that is just a bit smaller.

Let's guess that Nora is currently 14 years old.
Then Chandra would be 2 × 14 = 28.
Lian would be 14 + 6 = 20.
The sum of all their ages is 14 + 28 + 20 = 62.

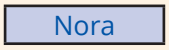
Nora's age	10	20	15	14	
Chandra's age	20	40	30	28	
Lian's age	16	26	21	20	
Sum of ages	46	86	66	62	

That matches the question.

So Nora is **14** years old.

Strategy 2: Draw a Diagram

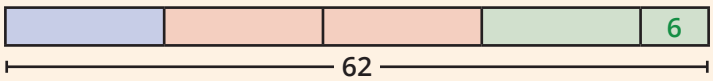
We can use a bar to represent Nora's age.



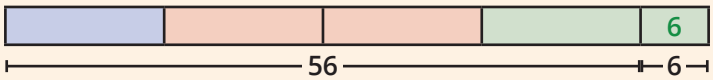
Chandra is twice as old as Nora.

Lian is 6 years older than Nora.

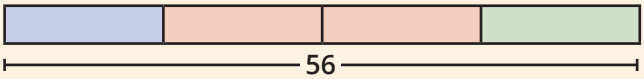
The sum of all their ages is 62.



We can partition the 62 to be 56 + 6.



We can now see that 4 × Nora's age is equal to 56.



This means that Nora's age would be 56 ÷ 4 = **14**.

Let's check:

Nora is 14 years old.

Chandra is 2 × 14 = 28.

Lian is 14 + 6 = 20.

The sum of their ages is 14 + 28 + 20 = 62.

That matches the question.

Answer 14

Preparation Task 2

A) Natalie and Polly are working on the following problem.

Natalie solves the problem correctly by drawing all of the people in the line.

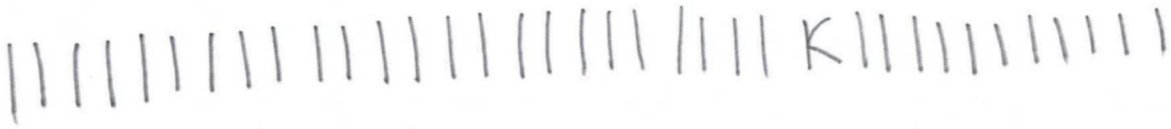
There are **36 people** in the line.

Kim stands in a line of people.

She is the 25th person counting from the front of the line.

She is the 12th person counting from the rear.

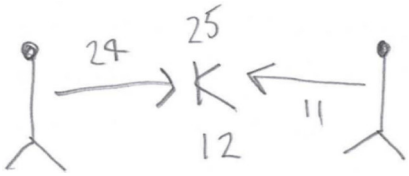
How many people are in the line?



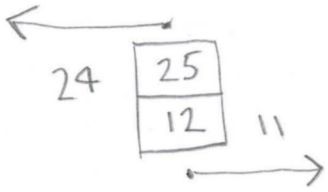
B) Polly and two other students in their class also created diagrams to solve the problem.

In their diagrams, they didn't include a mark for every person in the line.

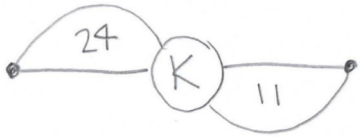
Polly's diagram



Chloe's diagram



Yinchen's diagram



Discuss and **compare** the diagrams.

Select the one that you think does the best job of showing the information.

Describe how it helps to solve the problem.

Polly thinks collecting different results in a table might help her to find a pattern, so she builds this table.

People in front of Kim	1	2	2			
People behind Kim	2	2	4			
Total People in line	4	5	7			

"I can see a **pattern**," says Polly.

"If there were **55** people in front of Kim and **6000** behind, I could calculate how many people were in the line without using a diagram."

Look carefully at the information in the table. Consider how the total number of people in line relates to the number in front of Kim and behind Kim. Can you write this pattern as a rule?

If you can, **use this pattern** to answer the problem Polly says she could solve.

Maths Games Example Problem - Preparation Task 2

Kim stands in a line of people.

She is the 25th person counting from the front of the line.

She is the 12th person counting from the rear.

How many people are in the line?

Strategy 1: Draw a Diagram

Kim is the **25**th person counting from the front of the line.

She is the **12**th person counting from the rear.

There are 24 people in front of Kim, and 11 people behind Kim.

This means that there are 24 + 11 = 35 other people in the line.

Kim is also in the line.

Including Kim, there are **35** + **1** = **36** people in the line.

Strategy 2: Solve a Simpler Related Problem, and Find a Pattern

Suppose Kim was the **2**nd person counting from the front of the line, and the **2**nd counting from the rear.

Then there would be **3** people in the line.

Kim's position from front of line	2			
Kim's position from rear of line	2			
No. people in line	3			

Suppose Kim was the **3**rd person counting from the front of the line, and the **2**nd counting from the rear.

Then there would be **4** people in the line.

Kim's position from front of line	2	3		
Kim's position from rear of line	2	2		
No. people in line	3	4		

Suppose Kim was the **3**rd person counting from the front of the line, and the **5**th counting from the rear.

Then there would be **7** people in the line.

Kim's position from front of line	2	3	3	
Kim's position from rear of line	2	2	5	
No. people in line	3	4	7	

It seems we can find the number of people in the line by adding Kim's two positions, and then subtracting **1**.

Why would this work?

Following the pattern, we can see that if Kim is the **25**th person from the front of the line, and the **12**th person counting from the rear, then there must be **25** + **12** – **1** = **36** people in the line.

Answer **36**

Preparation Task 3

A) Tom and Patrick are working together to solve this problem.

Tom says, "The Reds must have scored more than **22**."

Discuss Tom's claim with your partner and see if you can **uncover** what Tom has realised.

Write an **explanation** of Tom's reasoning.

> **The Reds beat the Blues in a football game.**
> **The sum of their scores was 44.**
> **The difference of their scores was 20.**
> **How many points did the Blues score?**

B) Tom says, "If the Reds scored **23**, then the Blues would have scored **21**."

Patrick says, "If the Reds scored **23**, then the Blues would have scored **3**."

Identify the clue from the problem that each child is using to support their claim.

Tom is using clue _____

Patrick is using clue _____

The Blues **can't** have scored **21** at the same time they scored **3**.

The boys need to find scores that fit both **criteria**.

C) Patrick says, "I'm going to build a table to keep track of what the scores might be. We have to make sure that the difference is always correct - that the Reds always score **20** more than the Blues."

R	25	26	27						
B(20 less)	5	6	7						
Total	30	32	34						

Patrick soon stopped adding scores.

"I can see that the Reds score will be more than **30**, so I'm jumping over some numbers, starting again at **31**," he said.

Complete the table for Patrick, starting at **31**.

Record how many points the Blues scored. _____

Tom replied, "Actually, I can see a pattern in the table. We can follow it to work out what Blues scored."

Look for the pattern that Tom can see.

Describe how to apply the rule to **44** to find out what the Blues scored.

Maths Games Example Solution - Preparation Task 3

The Reds beat the Blues in a football game.

The sum of their scores was 44.

The difference of their scores was 20.

How many points did the Blues score?

Strategy 1: Guess, Check and Refine

Let's guess a score for the Blues.

Since the sum of the Reds and Blues scores is **44**, and the Reds beat the Blues, the Blues score must be less than **44 ÷ 2 = 22**.

Let's guess that the Blues scored 14.

- The Reds must have scored **44 – 14 = 30**.
- The difference between the scores would be **30 – 14 = 16**.

Reds	Blues	Difference
30	14	16

We're aiming for a difference of **20**. Let's see what happens if we guess that the Blues scored 15.

- If the Blues scored 15, then the Reds must have scored **44 – 15 = 29**.
- The difference between the scores would be **29 – 15 = 14**.

That's getting further away from our target difference of **20**.

Reds	Blues	Difference
30	14	16
29	15	14

We just tried a bigger score for the Blues. Let's try smaller.

- If the Blues scored 13, then the Reds must have scored **44 – 13 = 31**.
  The difference between the scores would be **31 – 13 = 18**.
- If the Blues scored 12, then the Reds must have scored **44 – 12 = 32**.
  The difference between the scores would be **32 – 12 = 20**.

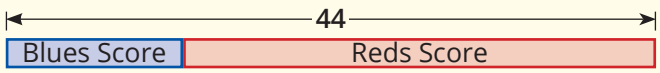
Reds	Blues	Difference
30	14	16
29	15	14
31	13	18
32	12	20

That matches the question.

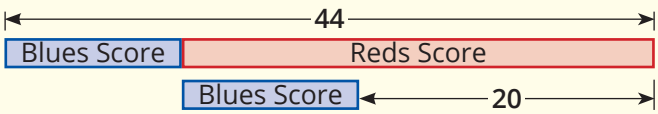
The Blues scored **12** points.

Strategy 2: Draw a Diagram

The sum of the Reds and the Blues scores was **44**.

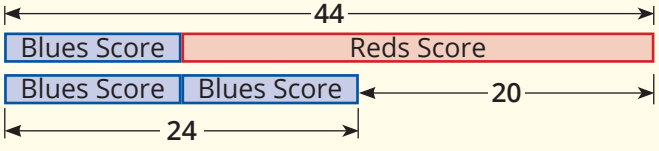


The difference between the scores was **20**.



We can see that Blues Score + Blues Score + **20 = 44**,

and so two Blues Scores must equal **44 – 20 = 24**.



Therefore, the Blues scored **24 ÷ 2 = 12** points.

Answer 12

Preparation Task 4

A) Michael and Zixin are working together on the following problem.

Michael says, "The answer must be an even number."

Zixin says, "Yes, I noticed that too."

Michael and Zixin then realised that they had different reasons for thinking that this was the case.

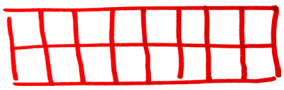
Discuss and **explain** different ways that can be used to work this out.

What is the value of the following?

(8 × 4) + (8 × 3) + (8 × 2) + (8 × 1)

B) Zixin says, "We know more than that. The answer must be 8 times something."

She drew the diagram at the right, to show Michael how she represents (8 × 2).



Use Zixin's method to represent **(8 × 4)**, **(8 × 3)** and **(8 × 1)**.

(8 × 4)	(8 × 3)	(8 × 1)

C) Michael says, "I think we can fit all of these diagrams together."

Use Michael's idea to create a single diagram that represents

(8 × 4) + (8 × 3) + (8 × 2) + (8 × 1).

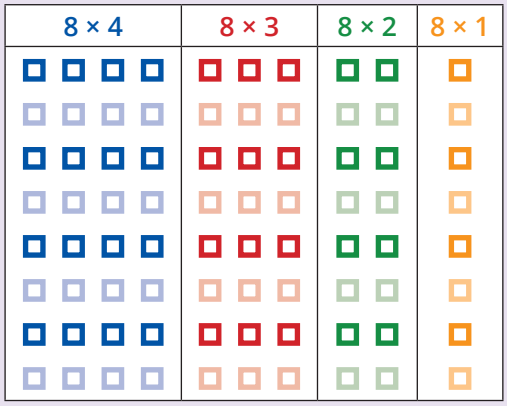
Maths Games Example Solution - Preparation Task 4

What is the value of the following?

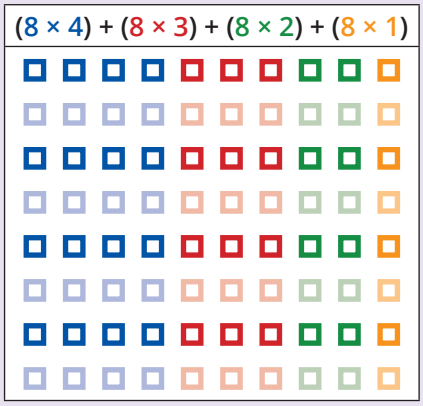
$(8 \times 4) + (8 \times 3) + (8 \times 2) + (8 \times 1)$

Strategy 1: Draw a Diagram

We can represent each multiplication as an array, like this:



The following amount results from adding the values together.



We can see that the diagram for

$(8 \times 4) + (8 \times 3) + (8 \times 2) + (8 \times 1)$

is the same as the array we would draw to represent

$8 \times (4 + 3 + 2 + 1)$

$= 8 \times 10.$

Therefore the value is equal to $8 \times 10 = \mathbf{80}$.

Strategy 2: Perform the Calculation

$(8 \times 4) + (8 \times 3) + (8 \times 2) + (8 \times 1)$

$= 32 + 24 + 16 + 8$

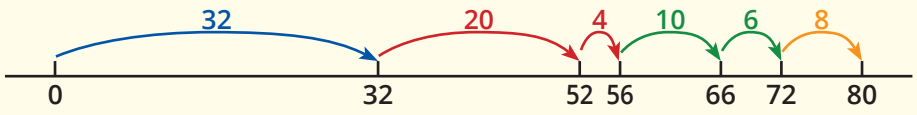
Method: Jump Strategy

$32 + 24 + 16 + 8$

$= 56 + 16 + 8$

$= 72 + 8$

$= 80.$



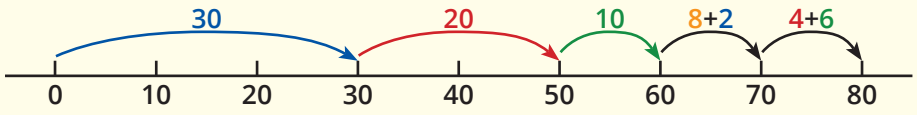
Method: Split Strategy

$32 + 24 + 16 + 8$

$= 30 + 2 + 20 + 4 + 10 + 6 + 8$

$= 30 + 20 + 10 + 8 + 2 + 4 + 6$

$= 80.$



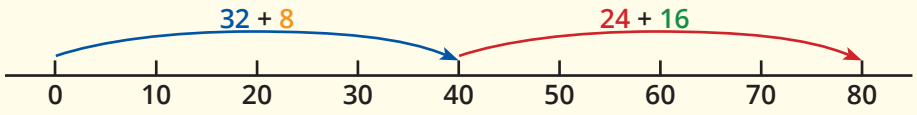
Method: Friends of 40

$32 + 24 + 16 + 8$

$= 32 + 8 + 24 + 16$

$= 40 + 40$

$= 80.$



The value of $32 + 24 + 16 + 8$ is **80**.

Answer **80**

Set Orange

P.1) If 16 is added to one-third of a number, the result is three times the number.
What is the number?

P.2) Points *A*, *B*, *C* and *D* are on a line.
They are not necessarily in that order.
Point *A* is between *B* and *C*.
Point *B* is between *A* and *D*.
Point *D* is to the left of point *C*.
List the points in order from left to right.

P.3) I have 45 bricks in six stacks, all in a row.
Going from left to right, each stack is one brick taller than the previous stack.
How many bricks are in the smallest stack?

P.4) After returning from a holiday to the USA, Megan has some American coins:

- 25c coins (quarters) and
- 10c coins (dimes),

with a total value of $1.95.

How many different combinations of 25c coins and 10c coins are there, that would have a total value of $1.95?

Example Problem P.1 - Summary

Example Problem P.1 - Green

Holly had some pencils.
She gave two of her pencils to her little sister.
Holly's little sister then had twice as many pencils as Holly.
How many pencils did Holly have to begin with?

Example Problem P.1 - Yellow

Shannon and Holly shared a new packet of lead pencils equally.
Holly gave two of her pencils to her little sister.
Shannon then had three times as many pencils as Holly.
How many pencils were there in the packet?

Example Problem P.1 - Orange

If 16 is added to one-third of a number, the result is three times the number.
What is the number?

Example Problem P.2 - Summary

Example Problem P.2 - Green

Gina is taller than Henry.
Gina is shorter than Jennie.
Ivan is shorter than Gina.
Ivan is taller than Katie.
Who is the tallest of these five people?

Example Problem P.2 - Yellow

Gina is taller than Henry but shorter than Jennie.
Ivan is taller than Katie but shorter than Gina.
Who is the tallest of these five people?

Example Problem P.2 - Orange

Points *A*, *B*, *C* and *D* are on a line.
They are not necessarily in that order.
Point *A* is between *B* and *C*.
Point *B* is between *A* and *D*.
Point *D* is to the left of point *C*.
List the points in order from left to right.

Example Problem P.3 - Summary

Example Problem P.3 - Green

My book is open. I see two pages.
The sum of the page numbers is 45.
What is the next page number?

Example Problem P.3 - Yellow

My book is open. I see two pages.
The sum of the page numbers is 245.
What is the next page number?

Example Problem P.3 - Orange

I have 45 bricks in six stacks, all in a row.
Going from left to right, each stack is one brick taller than the previous stack.
How many bricks are in the smallest stack?

Example Problem P.4 - Summary

Example Problem P.4 - Green

To send a package overseas, I affixed seven stamps, to give a total of $11 postage.

I only used $1 and $2 stamps.

How many $2 stamps did I use?

Example Problem P.4 - Yellow

To send a package overseas, I affixed seven stamps, to give a total of $23 postage.

I only used $5 and $2 stamps.

How many $2 stamps did I use?

Example Problem P.4 - Orange

After returning from a holiday to the USA, Megan has some American coins:

- 25c coins (quarters) and
- 10c coins (dimes),

with a total value of $1.95.

How many different combinations of 25c coins and 10c coins are there, that would have a total value of $1.95?

Answers

Set Yellow	
P.1	6
P.2	Jennie
P.3	124
P.4	4

Set Green	
P.1	3
P.2	Jennie
P.3	24
P.4	4

Preparation Tasks	
1	14
2	36
3	12
4	80

Set Orange	
P.1	6
P.2	*D, B, A, C*
P.3	5
P.4	4