

# Year 7 (2022)

## MATHEMATICS

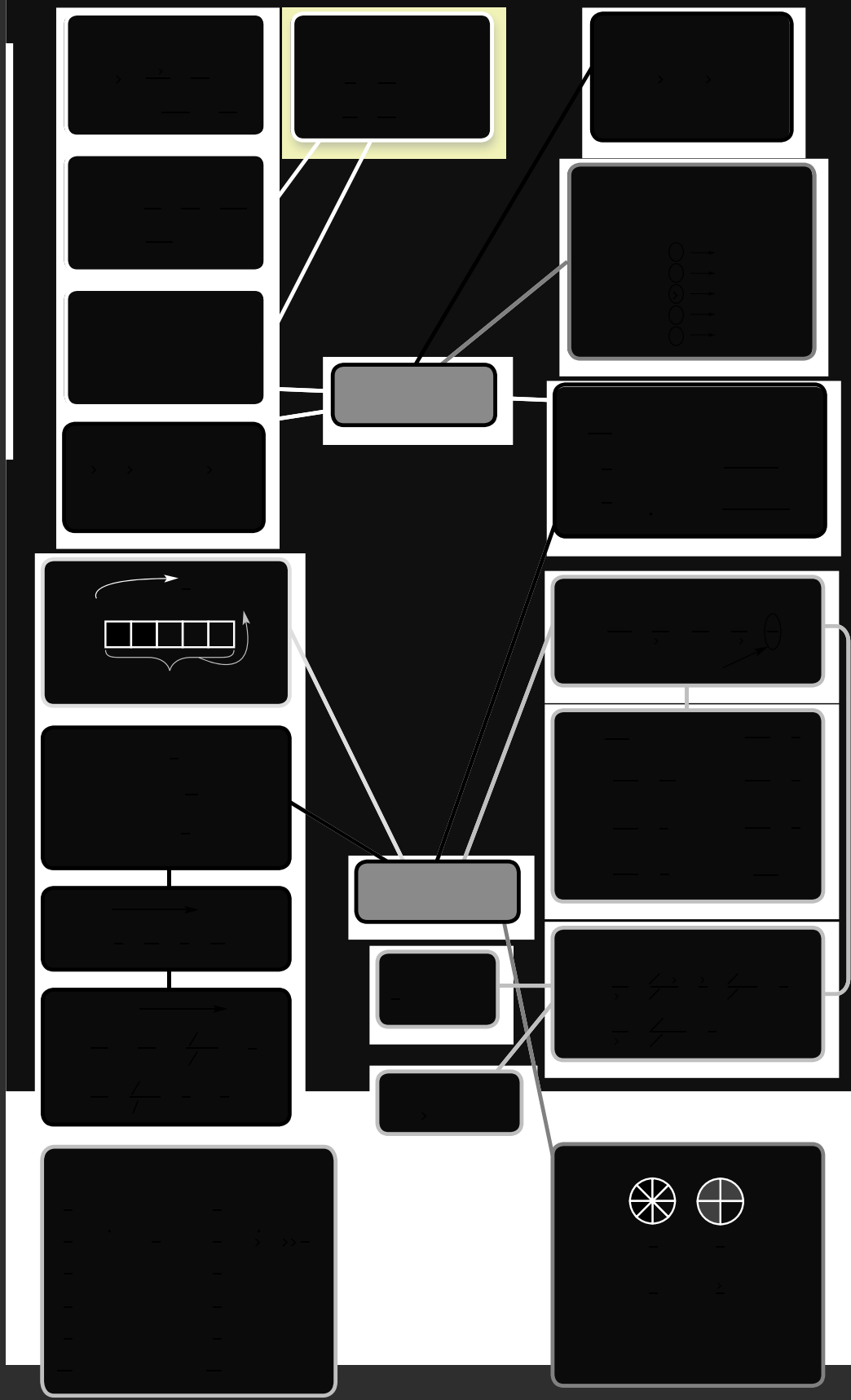
### Term 3 Common Test Task Notification

<b>Date</b>	<b>Week 3A</b> <b>Monday 1<sup>st</sup> Aug 2022 &amp; Tuesday 2<sup>nd</sup> Aug 2022</b>	
<b>Classes Assessed</b>	<b>Classes Monday 1<sup>st</sup> Aug 2022</b> Compulsory for: 7 MAT Y (Ms Bazzi)                      Period 2 7 MAT G    Period 2 7 MAT B (Mr Smithard)                      Period 4 7 MAT I (Mr Fomin)                              Period 4 7 MAT R    Period 5 7 MAT O (Ms Ibrahim)                          Period 5	<b>Classes Tuesday 2<sup>nd</sup> Aug 2022</b> Compulsory for: 7 MAT V (Mr Smithard)                      Period 3 7 MAT P (Ms Ataalla)                          Period 3 7 MAT T (Mr Chakari)                          Period 3
<b>Weighting</b>	25% of Year 7 Mathematics Assessment	
<b>Examination Details</b>	Read the following details carefully and write them into your diary. <b>Duration:</b> 50 minutes <b>Format:</b> <b>NON-CALCULATOR</b> <b>Venue:</b> Classrooms	
<b>Equipment Required</b>	The following equipment is required for this assessment task: <ul style="list-style-type: none"> <li>• Stationery (Blue and/or black pens, lead pencils, ruler)</li> </ul> <b>Note:</b> <ul style="list-style-type: none"> <li>• No borrowing of equipment will be permitted.</li> <li>• A formula/reference sheet will be provided for this examination.</li> <li>• No books, notes or handwritten summaries will be permitted.</li> </ul>	
<b>Marking Criteria</b>	<ul style="list-style-type: none"> <li>• All questions should be attempted.</li> <li>• All questions are worth 1 mark unless otherwise indicated.</li> <li>• <b>To obtain full marks, answers must be completely correct and all necessary working must be shown.</b></li> <li>• Some marks may be awarded for partially correct answers.</li> <li>• Trivial attempts will be counted as a non-attempt and may result in an official warning letter being issued.</li> </ul>	
<b>Absentee Procedures</b>	If you are absent on the day of this examination, upon your return to school you must present a Medical Certificate/letter from a parent/guardian to your Class Teacher or the Head Teacher explaining your absence, otherwise a mark of zero may be awarded. You will be required to sit for your examination on the first day you return to school.	

## Year 7 Term 3 Common Test

The following table lists all the Stage 4 outcomes, knowledge and numeracy skills that will be assessed in this assessment task.

Strands	Assessment Outcomes
<b>Number and Algebra</b>	<p><b>Topic: <u>Understanding fractions, decimals and percentages</u></b></p> <ul style="list-style-type: none"><li>• Cambridge 7 – Chapter 4</li><li>• Cambridge Gold NSW 7 – Chapter 4</li></ul> <p><b>MA2-7NA</b> Compares, orders and calculates with fractions, decimals and percentages.</p>
<b>Statistics &amp; Probability</b>	<p><b>Topic: <u>Probability</u></b></p> <ul style="list-style-type: none"><li>• Cambridge 7 – Chapter 5</li><li>• Cambridge Gold NSW 7 – Chapter 5</li></ul> <p><b>MA4-21SP</b> Represents probabilities of simple and compound events.</p>
<b>Working Mathematically</b>	<p><b>MA4-1WM</b> A student communicates and connects mathematical ideas using appropriate terminology, diagrams and symbols</p> <p><b>MA4-2WM</b> A student applies appropriate mathematical techniques to solve problems</p> <p><b>MA4-3WM</b> A student recognises and explains mathematical relationships using reasoning</p>



**Presenting data from a survey**

50 people were asked:

- Are you male? (Yes/No)
- Do you drive a car? (Yes/No)

**Venn diagram**

**Two-way table**

	Drive	Don't drive
Male	5	10
Not male	20	15

**Probability**

**Theoretical probability**  
How likely an event is

unlikely  $\frac{1}{2}$  likely

0 ———  $\frac{1}{2}$  ——— 1

impossible    even chance    certain

more likely  $\longrightarrow$

Experiment: Toss a coin  
Sample space: {H, T}

$P(H) = \frac{1}{2}$   
 $P(T) = \frac{1}{2}$

Experiment: Spin the spinner  
Sample space: {red, green, blue}

$P(\text{spin red}) = \frac{1}{3}$   
 $P(\text{don't spin blue}) = \frac{2}{3}$

Experiment: Roll a fair die  
Sample space: {1, 2, 3, 4, 5, 6}

$P(\text{roll a 5}) = \frac{1}{6}$   
 $P(\text{roll odd number}) = \frac{3}{6} = \frac{1}{2}$

Experiment: Select a playing card and note its suit.  
Sample space: {♠, ♦, ♣, ♥}

$P(\spadesuit) = \frac{1}{4}$   
 $P(\heartsuit \text{ or } \clubsuit) = \frac{2}{4} = \frac{1}{2}$

$P(\text{red ace}) = \frac{2}{52} = \frac{1}{26}$

**Experimental probability**  
Use an experiment or survey or simulation to estimate probability.

e.g. Spinner lands on blue 47 times out of 120, so experimental probability =  $\frac{47}{120}$

Probabilities can be given as fractions, decimals or percentages.

e.g. 25%,  $\frac{1}{4}$ , 0.25  
e.g. 70%,  $\frac{7}{10}$ , 0.7

**Expected number is**  
 $P(\text{event}) \times \text{number of trials}$

e.g. Flip coin 100 times, expected number of heads =  $\frac{1}{2} \times 100 = 50$

e.g. Roll die 36 times, expected number of 5s =  $\frac{1}{6} \times 36 = 6$

More trials make the experimental probability more reliable or accurate.