Year 3	Western Adelaide Region - Maths Assessment Tasks Map *(Draft –November 2013)*					Proficiency Strands
Aims	**The Australian Curriculum Mathematics aims to ensure that students**……are confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens; develop an increasingly sophisticated understanding of mathematical concepts and fluency with processes, and are able to pose and solve problems and reason in *Number and Algebra, Measurement and Geometry, and Statistics and Probability*; recognise connections between the areas of mathematics and other disciplines and appreciate mathematics as an accessible and enjoyable discipline to study.					• Understanding • Fluency • Problem Solving • Reasoning
Content Strands	**Number & Algebra**					
Sub Strands	**Number & Place Value**				**Fractions and Decimals**	**Money and Financial Mathematics** / **Patterns & Algebra**
Big Idea / Concept/ Key Understanding	-All numbers ending with the digit 0, 2, 4, 6 or 8 are even and those ending in 1, 3, 5, 7 or 9 are odd -Numbers with more than 1 digit are also classified as odd or even	Place Value -Place value has a logical, repeating pattern that extends to the thousands and beyond -Numbers can be renamed in various ways *(i.e. 254 can be renamed as 25 tens and 4 ones, or 254 ones)* -In place value there are names for each new unit (multiples of 10) *(i.e. tens, hundreds, thousands)*	Additive to Multiplicative Thinking -There are many different ways to represent numbers, and to add, subtract , divide and multiply numbers -There are strategies that help with addition and subtraction (e.g. commutative properties) -Fluency with number facts is essential for developing and applying efficient mental strategies	-Multiplication can be equated to repeated addition and repeating patterns -Division is the inverse operation of multiplication. It also means to make groups of -It is important to recognise each operation and its appropriate use -Exploring generalisations develops number knowledge *(e.g. for 3 fours "I know that 4 doubled is 8, so 1 more 4 is 12")*	Partitioning -The number of parts names the part *(i.e. 3 parts- thirds, 5 parts- fifths)* -As the number of parts increases, the size of the parts decreases *(this is different to working with numbers)* -Fractions have equal parts -Developing the language of fractions is important *(i.e. "I have 1 out of 2 apples, I have half" – how many out of how much; it is quarter past 5)* -A unit fraction is a fraction whose numerator is 1 *(e.g. $^1/_3$: in $^2/_3$ the unit is $^1/_3$ and we have 2 of them)*	-Currency has determined values and can be recognised according to appearance and value -The size of Australian coins and notes does not determine its value -Money values can be represented in a variety of combinations -Each country has its own currency -Currency provides access to food and services	-A pattern requires an element of repetition that can be described with a pattern rule -Patterns can be represented in many ways, including using combinations of numbers, objects and symbols -Patterns are all around us
Australian Curriculum Content Descriptor	Investigate the conditions required for a number to be odd or even and identify odd and even numbers	Recognise, model, represent and order numbers to at least 10 000 Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems	Recognise and explain the connection between addition and subtraction Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation	Recall multiplication facts of two, three, five and ten and related division facts Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies	Model and represent unit fractions including 1/2, 1/4, 1/3, 1/5 and their multiples to a complete whole	Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents	Describe, continue, and create number patterns resulting from performing addition or subtraction
Achievement Standard	Students **classify numbers as either odd or even**	Students **count to and from 10 000**	Students **recognise the connection between addition and subtraction** and **solve problems using efficient strategies** for multiplication	Students **recall addition and multiplication facts** for single digit numbers	Students **model and represent unit fractions**	Students **represent money values** in various ways / Students **correctly count out change** from financial transactions	Students **continue number patterns** involving addition and subtraction
Summative Assessment Task		**3.1** Take 4!	**3.2** Grandma's Famous Apple Pies		**3.3** All about my fraction What is a fraction?	**3.4** Money Thinkboard	

Developed by Karly Hefferan, Chris Miethke, Susan Glaister, Karen Knox, Lauren Fletcher-Rees & Dawn Dyer

3.1 – Number & Place Value

Apply place value knowledge to model, represent, order, partition & regroup numbers

Western Adelaide Region
Mathematics Performance Assessment Tasks *(Updated: November 2013)*

Year 3

Big Idea(s)

-Place value has a logical, repeating pattern that extends to the thousands and beyond.
-Numbers can be renamed in various ways *(i.e. 254 can be renamed as 25 tens and 4 ones, or 254 ones).*
-In place value there are names for each new unit (multiples of 10) *(i.e. tens, hundreds, thousands).*

Australian Curriculum Content Descriptor

Recognise, model, represent and order numbers to at least 10 000.
Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems.

Achievement Standard

By the end of Year 3, students count to and from 10 000.

Related Mathematical Proficiencies

- *Understanding* includes combining number representations with number sequences, partitioning and combining numbers flexibly

Prior Learning Experiences

Do I use ongoing Formative Assessment to inform the teaching & learning cycle? Do I provide learning experiences that enable students to build on their knowledge?

It is important that students have had experiences with the learning opportunities below before administrating the assessment task.

Developing:

Understanding Fluency Problem Solving Reasoning

Through experiences with:

- Hundreds chart counting patterns – counting on & back by 10s; exploring the number in the ones doesn't change when adding 10
- Mental routines & Problematised situations using a 100s chart, place value buttons, decimal place value *(Natural Maths & Natural maths PV software, Ann & Johnny Baker)*
- H/T/O boards, whiteboards- using popstick bundles or lids marked with 1, 10, 100, 1000
- Story books *(e.g. 1 is a Snail, 10 is a Crab, April Pulley)*
- Place value card sets – words and numbers
- Number expanders (Th, H,T,O) for renaming
- Thinkboard – The answer is 100, 1000, etc.
- Sequence numbers, explore highest, lowest numbers, etc. as small and larger groups
- Roll and say- using an interactive die roll and record each number. Students repeat the number recorded *(e.g. 6, 26, 426, 7426, etc.)*
- Efficient counting to reinforce efficient strategies for large collections
- Counting games - pass a ball or beanbag & count by 10s, Wishball; Michael Ymer 's games
- 0-9 Cards – compare, order, count on, count back in place value parts, rename
- Calculators –choose a number, keep adding 10

Feedback

How will I provide feedback to students?

Teacher observations

Conferences 1:1 with peers & teacher

Learning log: Student identifies areas for focus

SNW (S- strengths, N – needing improvement, W- where to next)

Stars/smiley faces

Summative Assessment

*Does the assessment task indicate **how well** students understand and can apply their learning? (**how well** = extent, depth and sophistication of thinking – informs A-E grading)*

Take 4! *(see attachments 3.1A and 3.1B)*

Entry Level
Students draw out 4 random numbers from a bag of mixed 0-9 cards and are asked to make any 4 digit number using their number cards and paste or record their number on their recording sheet. Students are asked to record everything they know about their number.

***if students pull out 2 numbers the same, they could redraw or simply keep their numbers – as the teacher you can decide**
***you could ask students to roll 0-9 dice instead of using numeral cards**
if this is too challenging for some students ask them to only draw out 3 numbers

Challenge Level
What if you had 5 (or 6) numbers? How could you show what you know about place value?

Questioning *– "Can you read me your number?" "Tell me why you chose… as your number?" "What would be the number that is 10 more than…, 10 less than…?" "What if you couldn't use any (thousands) how would you rename your number?" "What if there were a zero in the …'s place? What would your number be?" "Are there patterns in the way we say numbers?"*

Organisation
Teacher – copies of attachment 3.1B *(enlarge to A3);* bag of mixed numerals 0-9 enough for all students *(see attachment 3.1A)*
Students – attachment 3.1B; *(0-9 dice if using this option);* glue; pencils

Evidence

What evidence am I looking for that demonstrates the student has got it?

Students will:
- Demonstrate knowledge by counting flexibly from a range of starting points and in a range of increments.
- Show understanding by recognising, modeling, representing, ordering, partitioning (renaming) numbers to at least 10 000.

Advanced – Students demonstrate an understanding of place value by accurately identifying place value parts within their 4 digit number and then with their larger number. They show a range of ways to model and represent their number, choosing more complex strategies *(e.g. counting on and back by 10s, 100s or even 1000s)*. They are able to identify which strategy or model best demonstrates their understanding and applies this to a larger, more complex number.

Competent –Students demonstrate an understanding of place value by modelling and recording a 4-digit number in terms of its parts. They recognise the number that comes directly before and after. They count on and back in 10s or 100s.

Developing –Students demonstrate some/little understanding of place value. They are able to represent some ideas using up to a 3-digit number. They require scaffolding when recording.

3.2 – Number & Place Value

Recognise and apply commutative properties

Western Adelaide Region

Mathematics Performance Assessment Tasks *(Updated: November 2013)*

Year 3

Big Idea(s)

-There are many different ways to represent numbers, and to add, subtract , divide and multiply numbers.
-There are strategies that help with addition and subtraction *(e.g. commutative properties).*
-Multiplication can be equated to repeated addition and repeating patterns.

Australian Curriculum Content Descriptor

Recognise and explain the connection between addition and subtraction.
Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation.
Recall multiplication facts of two, three, five and ten and related division facts.
Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies.

Achievement Standard

By the end of Year 3, students recognise the connection between addition and subtraction and solve problems using efficient strategies for multiplication. They recall addition and multiplication facts for single digit numbers.

Related Mathematical Proficiencies

- *Fluency* includes recalling multiplication facts
- *Reasoning* includes using generalising about number properties

Prior Learning Experiences

Do I use ongoing Formative Assessment to inform the teaching & learning cycle? Do I provide learning experiences that enable students to build on their knowledge?

It is important that students have had experiences with the learning opportunities below before administrating the assessment task.

Developing:

Understanding Fluency Problem Solving Reasoning

Through experiences with:

- Exploring efficient strategies for number *(e.g. Natural Maths mental computation, chunking, tallies, open number line, balance and compensate, rainbow facts to 100, landmark numbers, etc.)*
- Mental routines using 1-100 chart (*Natural Maths, Ann & Johnny Baker)*
- Problematised Situations, using real-world narratives – Natural Maths: Problem Solving book Level 2/ Level 3
- Use wrapping paper to explore efficient counting *(e.g. could we find out how many lollies there are? How could we count them? Which lolly occurs most frequently?)*
- Dice games: Roll 2/3/4 dice- How many altogether? How do you know? Could you count in a different way?
- Hidden numbers – early algebraic thinking (The answer is… what might the numbers be? Could there be 3 numbers?)
- Picture books *(e.g. One is a Snail, Ten is a Crab – April Pulley; One Grain of Rice- Demi; Anno's Mysterious Multiplying Jar, Anno Masaichiro)*
- Thinkboards – worded problem (In the car park when I left the school last night I counted 4 cars, how may wheels were there?)
- Cuisenaire rods – counting using part-part whole and doubles
- Groups of… *(e.g. 4 groups of 3, frame as a problem solving task – on the muffin tin there are 3 rows, in each row is 4 spaces for a muffin. How would I know how many muffins it makes?)*
- Basic arrays models to support groups of– How could we arrange 12, 18, 24 counters as arrays?

Feedback

How will I provide feedback to students?

Teacher observations

Conferences 1:1 with peers & teacher

Learning log: Student identifies areas for focus

SNW (S- strengths, N – needing improvement, W- where to next)

Stars/smiley faces

Summative Assessment

*Does the assessment task indicate **how well** students understand and can apply their learning? (**how well** = extent, depth and sophistication of thinking – informs A-E grading)*

Grandma's Famous Apple Pies *(attachment 3.2)*

Entry Level ***The teacher narrates and records key information on the board (e.g. 24 apples, 6 apple pies). If using the attachment students should be encouraged to highlight the key information.***

My grandma Dorothy makes the best apple pies. Each year for the Royal Show she would make her famous apple pies. The organisers of the show were tired of my grandma winning first place all the time so they gave her a 'Hall of Fame' award. I was lucky enough to go with grandma when she received her award. They were asking her all sorts of questions at the interview. They badly wanted to know what was in her famous apple pies. She wouldn't tell them her secret recipe but she did say:

"The secret is in the apples. You need to have just the right amount. I am lucky that my neighbour Sue has the loveliest green apple tree. Every year before the show Sue brings me 24 of her biggest and juiciest green apples. With those apples I have just enough to make 6 delicious apple pies."

I was trying to work out how many apples she used but I was too hungry for apple pie to even know where to start. Do you think you could help me to work out how many apples are needed in each of Grandma's famous apple pies? Explain your thinking.

Challenge Level

Sue's apple tree didn't have a good season and the apples weren't very big. She didn't have many to give away and could only give Grandma 20 of her juicy apples. Grandma said she had to use an extra apple in each pie. How many pies could Grandma now make?

Questioning *– "Tell me how you worked out how many apples were in each pie?" "What strategies did you use? "What did you already know that helped you to solve the problem?" "What strategies did you use to solve the problem?"*

Organisation

Teacher – copies of attachment 3.2 (optional); read students the narrative and record the key information on the board; have counters available if required
Students – attachment 3.2 or paper for recording

Evidence

What evidence am I looking for that demonstrates the student has got it?

Students will:

- Demonstrate knowledge by solving a worded problem involving the use of multiplicative strategies.
- Show understanding by identifying efficient strategies, such as number facts knowledge, and describing how these strategies were used to solve the problem.

Advanced –Students demonstrate an understanding of problem solving using multiplicative strategies. They identify how their knowledge of number facts *(e.g. 6 fours are 24)* assisted them to solve the problem. They are able to apply their solution from the entry level problem to a new situation, involving reducing the total number of items and increasing the number in each group to find a new solution.

Competent –Students demonstrate an understanding of problem solving using making equal groups. They may identify 'fair share' or equal groups as their strategy. They identify that their knowledge of number facts assisted them with finding a solution. They may attempt the challenge level question.

Developing –Students demonstrate some/little understanding of problem solving involving multiplication. They attempt to use skip counting as a strategy to find a solution. They require scaffolding to draw a model of the problem or require the use of counters to assist.

3.3 – Fractions & Decimals

Model and represent unit fractions

Western Adelaide Region

Mathematics Performance Assessment Tasks *(Updated: November 2013)*

Year 3

Big Idea(s)

-The number of parts names the part (i.e. 3 parts- thirds, 5 parts- fifths).
-As the number of parts increases, the size of the parts decreases.
-Fractions have equal parts.
-Developing the language of fractions is important (i.e. "I have 1 out of 2 apples, I have half" – how many out of how much; it is quarter past 5).
-A unit fraction is a fraction whose numerator is 1 (e.g. $^1/_3$: in $^2/_3$ the unit is $^1/_3$ and we have 2 of them).

Australian Curriculum Content Descriptor

Model and represent unit fractions including $^1/_2$, $^1/_4$, $^1/_3$, $^1/_5$ and their multiples to a complete whole.

Achievement Standard

By the end of Year 3, students model and represent unit fractions.

Related Mathematical Proficiencies

- *Understanding* includes representing unit fractions

Prior Learning Experiences

Do I use ongoing Formative Assessment to inform the teaching & learning cycle? Do I provide learning experiences that enable students to build on their knowledge?

It is important that students have had experiences with the learning opportunities below before administrating the assessment task.

Developing:

Understanding Fluency Problem Solving Reasoning

Through experiences with:

- Exploring true fractions must have equal parts
- Exploring the names of fractions *(i.e. if a fraction has three parts its name is thirds)*
- Modelling and exploring halves, quarters, thirds, fifths using paper folding and drawing diagrams
- Counting by halves, thirds, quarters and fifths to complete a whole
- Make a bag of fractions – compare and order fractions according to size *('why is a half smaller than 1 whole? Why are thirds smaller than 1 half, when we know that the number 3 is larger than 2?')*
- Dividing plasticine/modelling clay/ play dough models to make halves, thirds and quarters
- Partition different areas and lengths to create the same fractions *(e.g. folding different sized paper to explore the number of parts in relation to the size of the part - a half is a half as long as it has 2 parts, no matter the size/width/length)*
- Problem solving with basic fractions ($^1/_2$, $^1/_3$, $^1/_4$) using a thinkboard
- Fractions games – matching fractions diagram and symbols; matching symbols to make a whole *(e.g. 2 halves, 3 thirds, etc.)*
- Exploring fractions in real-world contexts – *(e.g. fractions of a small quantity- sharing lollies; fraction of time; how would you cut 2 ½ oranges to make quarters?)*
- Exploring problem solving questions requiring whole amounts to be purchased (i.e. can you buy 2 ½ pizzas?)

Feedback

How will I provide feedback to students?

Teacher observations

Conferences 1:1 with peers & teacher

Learning log: Student identifies areas for focus

SNW (S- strengths, N – needing improvement, W- where to next)

Stars/smiley faces

Summative Assessment

*Does the assessment task indicate **how well** students understand and can apply their learning? (**how well** = extent, depth and sophistication of thinking – informs A-E grading)*

Option 1: All about my Fraction *(Adapted from the Australian Curriculum Year 3 work samples)*

Entry Level

Students chose a fraction from a set of fractions recorded on the board. They are asked to show everything they know about the fraction. Students are asked to identify where they might use or see their fraction in the real world.

Fraction options: ½, ¼, $^1/_3$, $^1/_5$

Challenge Level

What if you had all 4 fractions, how could you model for each fraction? How could you represent these on a number line?

Option 2: A fraction of… *(see attachment 3.3)*

Entry Level

Students are given real world pictures and are asked to record what they know about fractions using the pictures as a stimulus. "How could you use the pictures to show me what you know about fractions?"

Challenge Level

Choose one of the pictures and write a problem involving fractions.
Use two of the pictures and create a problem solving question that includes both pictures.

Questioning *– "Tell me about your fraction?" "What else do you know?" "How many parts of your fraction would be needed to make a whole?" "How could you model… (e.g. 3 halves?" "Could you model/draw your fraction different ways?" "Where would you order the fractions on a number line?" "How would you find a fraction of a quantity (e.g. half of 12)?"*

Organisation

Teacher – blank A3 paper for recording; mixed items for students to use, model *with (e.g. streamers, frieze tape, 125mmx125mm squares, mixed counters, etc.)*; camera (take photos to stick on student work samples); copies of attachment 3.3 *(option 2 only)*
Students – blank A3 paper; pencils/ textas; glue; attachment 3.3 *(option 2 only)*

Evidence

What evidence am I looking for that demonstrates the student has got it?

Students will:

- Demonstrate knowledge by modelling and representing a simple unit fraction.
- Show understanding by recording multiple ways of modelling and representing a unit fraction, including identifying their multiples to complete a whole.

Advanced –Students demonstrate an understanding of fractions by modelling various ways of representing their chosen fraction. They identify the multiples required to complete a whole and they model a fraction of a quantity. They identify real-world links to their chosen fraction and are able to identify its place on a number line, along with 3 other common fractions. They are able to use stimulus pictures to represent different common and uncommon fractions.

Competent –Students demonstrate an understanding of fractions by modelling various ways to represent their chosen fraction. They use materials to model their fraction and to identify multiples to complete a whole.

Developing –Students demonstrate some/little understanding of their chosen fraction. They attempt to model their fraction however represent this using unequal parts or an inaccurate number of parts. They require scaffolding to participate.

3.4 – Money& Financial Mathematics *Represent money values*	Western Adelaide Region Mathematics Performance Assessment Tasks *(Updated: November 2013)*	Year 3

Big Idea(s)
-Currency has determined values and can be recognised according to appearance and value.
-The size of Australian coins and notes does not determine its value.
-Money values can be represented in a variety of combinations.

Australian Curriculum Content Descriptor
Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents.

Achievement Standard
By the end of Year 3, students represent money values in various ways.

Related Mathematical Proficiencies
- *Understanding* includes representing money in various ways
- *Fluency* includes recalling various money combinations efficiently

Prior Learning Experiences

Do I use ongoing Formative Assessment to inform the teaching & learning cycle? Do I provide learning experiences that enable students to build on their knowledge?

It is important that students have had experiences with the learning opportunities below before administrating the assessment task.

Developing:
Understanding Fluency Problem Solving Reasoning

Through experiences with:

- Money mental routines – money combinations, buying items, giving change *(e.g. using the Coin Mat software Natural Maths, Ann & Johnny Baker)*
- Exploring play money in formal and informal situations *(e.g. playing shop)*
- Exploring shopping lists, menus, shopping catalogues, receipts, etc.
- Identifying currency, including exploring currency from around the world
- Exploring multiple ways to make money combinations
- Exploring multiples of coins *(e.g. "if I have ten, 10 cent coins I have $1.00)*
- Games involving buying items and giving change
- Simple addition and subtraction of money amounts
- Ordering items – cheapest to most expensive
- Estimating money amounts
- Rounding up/down to the nearest 10 cents and 5 cents
- Running totals – adding on small money amounts
- Efficient strategies and generalisations for multiple coins *(e.g. if I have five 5 cent coins – 4 fives are 20 and 1 more is 25; there are five 20cent coins in $1.00, therefore there must be 10 in $2.00 as double 5 is 10 and double $1 is $2)*
- Exploring minimum money amounts required to make purchases *(i.e. how much money would be needed to purchase an item for $2.58?)*

Feedback

How will I provide feedback to students?

Teacher observations

Conferences 1:1 with peers & teacher

Learning log: Student identifies areas for focus

SNW (S- strengths, N – needing improvement, W- where to next)

Stars/smiley faces

Summative Assessment

*Does the assessment task indicate **how well** students understand and can apply their learning? (**how well** = extent, depth and sophistication of thinking – informs A-E grading)*

Money Thinkboard *(see attachments 3.4A & 3.4B: Thinkboards 1-4)*

Entry Level
Students choose a thinkboard to complete. Students are encouraged to choose something they can complete successfully, but might still challenge their thinking. Students use both coin and note templates *(attachment 3.4A)* to complete the thinkboard *(attachment 3.4B).*

Challenge Level
You wanted to take $100 from your savings in your money jar to put in your bank account. When you were counting your money you noticed that you didn't have any $10 notes. How many different ways could you have made $100 without using any $10 notes?

How could you represent $35/$60/$75 (choose 1) using more coins than notes? What would be the least/most amount of coins/notes?

Questioning *– "Tell me why you used (e.g. 2 x $5 notes to make $10)?" "Is there another way of showing $20.00 without using a $20.00 note?" "How could you represent $5.00 using (e.g. only 3 coins, the most/least amount of coins?)" "What notes and coins would you use if you wanted to use the least amount possible for $35? $50? $15?" "How could you record your notes and coins as a number sentence?" "What if you could only use coins to make…?"*

Organisation
Teacher – A3 copies of attachments 3.4A for each student; A3 copies of 3.4B (thinkboards 1-4) enough so that students can choose a board to use; play money available if needed
Students – attachments 3.4A and 3.4B; glue; pencils

Evidence

What evidence am I looking for that demonstrates the student has got it?

Students will:
- Demonstrate knowledge by representing money values in various ways.
- Show understanding by calculating change required using various combinations of coins and rounding this to the nearest 5 cents.

Advanced –Students demonstrate an understanding of money values by representing a chosen amount of money using multiple combinations. They use both coins and notes and demonstrates how this amount could be made using only coins or notes. They use multiplicative strategies when recording multiple coins of the same denomination *(e.g. 5x $10 to make $50, 5x 20 cents to make $1, 10x $2 to make $20, etc.).* They chose more complex combinations to make various money amounts.

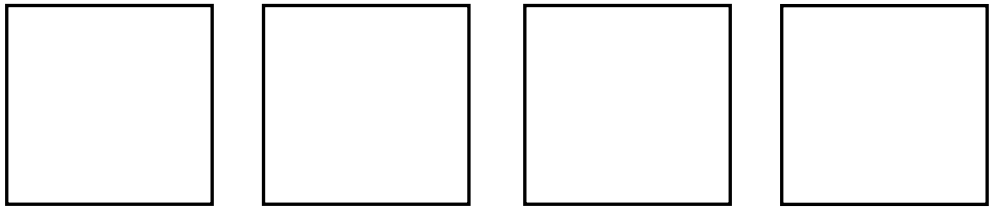
Competent –Students demonstrate an understanding of representing money values in multiple ways. They use simple combinations of notes and coins. They use additive strategies and methods of recording multiple coins of the same denomination.

Developing – Students demonstrate some/little understanding of money combinations of their chosen board. They choose an inappropriate thinkboard and records money combinations that do not represent the value required.

Attachment 3.1A - Take 4! **0-9 Numeral Cards** *(copy 3 or 4 sheets to allow for variety of numbers and enough for 4 numbers per student)*

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

Attachment 3.1B - Take 4! **Name:** **Date:**

My Number is 

Record everything that you know about your number. Here are **some ideas** to think about:

- How could you record it using place value parts?
- What number comes before and after?
- Could you count forwards or backwards by adding or taking 10? 100? 1000?
- How could you model/draw it?
- How could you write it in expanded form?
- How could you rename it in different ways?
- How else could you show what you know?

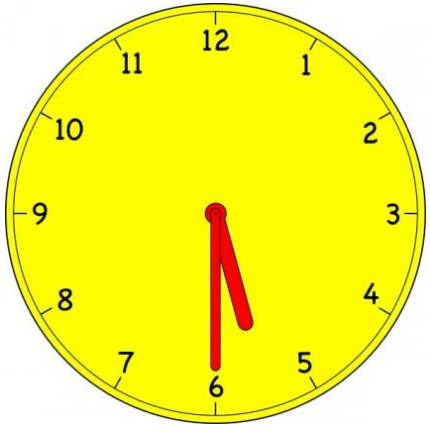
Attachment 3.2 – Grandma's Famous Apple Pies **Name:** **Date:**

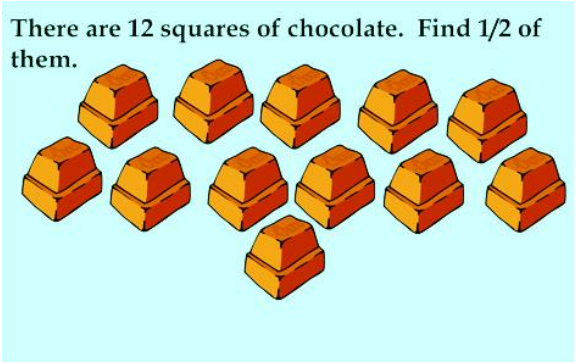
"The secret is in the apples. You need to have just the right amount. I am lucky that my neighbour Sue has the loveliest green apple tree. Every year before the show Sue brings me 24 of her biggest and juiciest green apples. With those apples I have just enough to make 6 delicious apple pies."

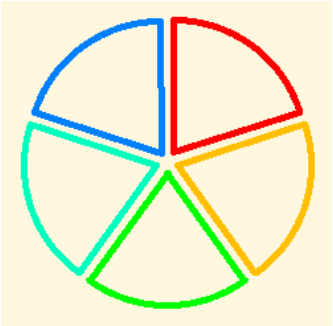
How many apples does Grandma use in each of her apple pies? ***Explain your thinking***

Attachment 3.3 – A Fraction of… **Name:** **Date:**

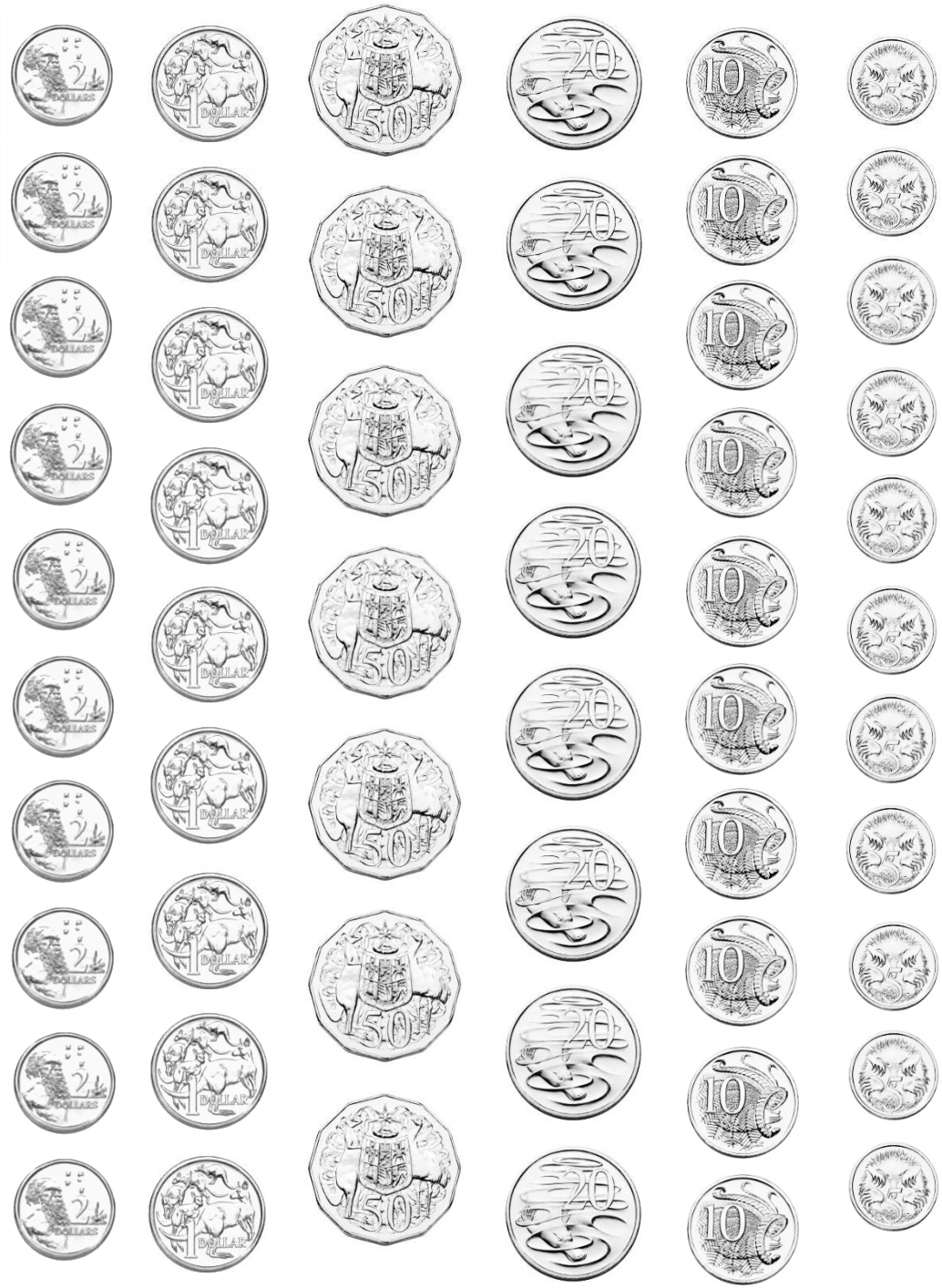
How can you use the pictures below to demonstrate what you know about fractions?

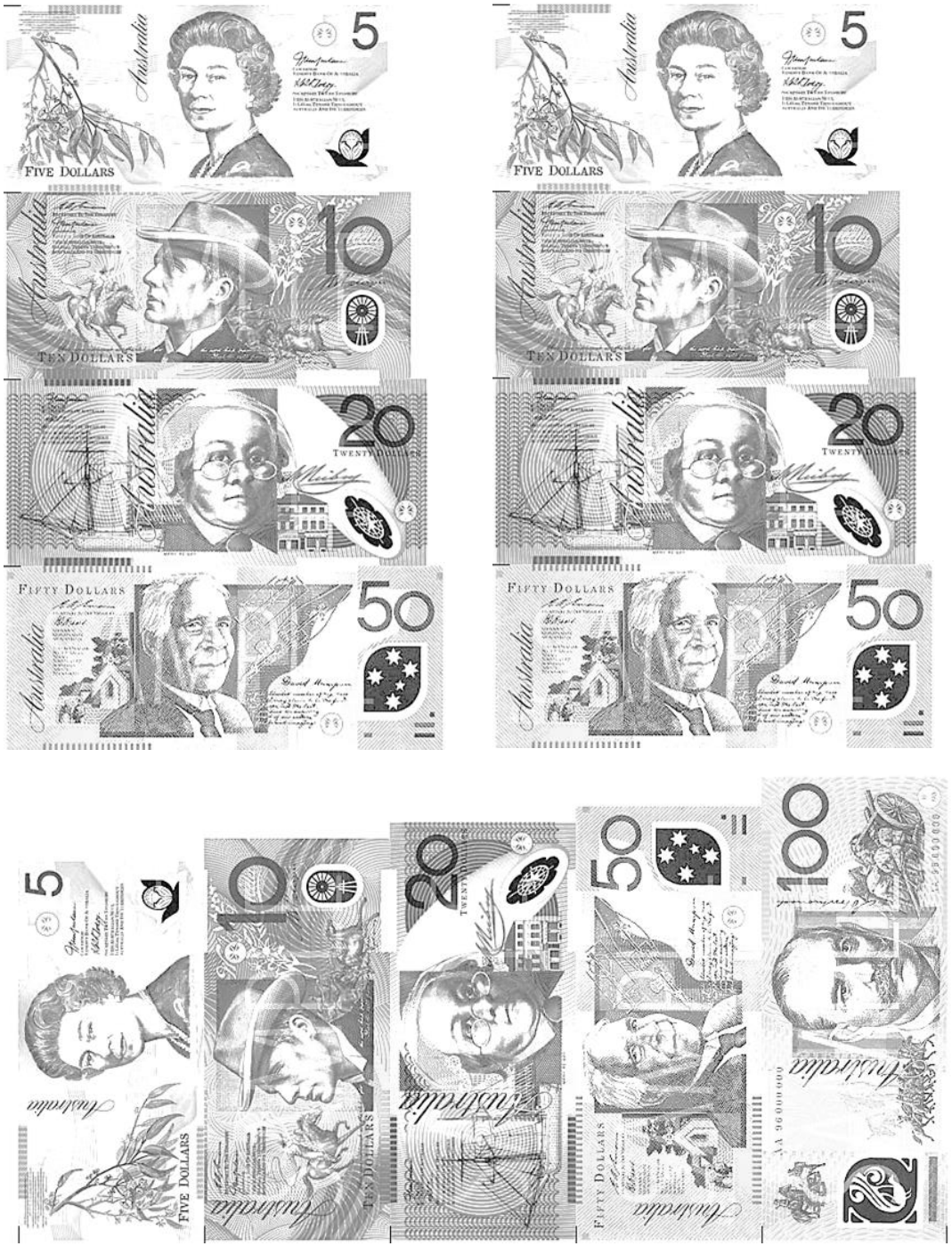






Attachment 3.4A - Money Templates





Attachment 3.4B - Money Thinkboard 1 **Name:** **Date:**

How many different ways can you represent **$15.00** using both notes and coins?

Attachment 3.4B - Money Thinkboard 2 **Name:** **Date:**

How many different ways can you represent **$25.00** using both notes and coins?

Attachment 3.4B - Money Thinkboard 3 **Name:** **Date:**

How many different ways can you represent **$35.00** using both notes and coins?

Attachment 3.4B - Money Thinkboard 4 **Name:** **Date:**

How many different ways can you represent **$50.00** using both notes and coins?