

Stage 2 Outcomes Based Assessment Tasks

NUMBER

NSW Country Areas Program
NSW Department of Education and Training

Stage Two - Number

STAGE 2 OUTCOME ASSESSMENT MAPPING GRID

Stage of Task	2 NUMBER
Outcome	1. Whole Numbers
Outcome Descriptor	<p>(a) Counts, compares and orders whole numbers up to 9999 and represents them in symbols and words, stating the place value of any digit</p> <p>(b) Demonstrates an understanding that numbers can be represented using groupings of 10, 100, 1000.</p>
Stage	Number of Indicator Questions
1	2
2	5
3	1

Question	1	2	3	4	5	6	7	8				
Stage	1	1	2	2	2	2	2	3				
Indicator Description												
<ul style="list-style-type: none"> Counts forward from any number to numbers up to 100, eg by ones, fives, threes. Represents a collection of objects symbolically, eg numerals, tally marks, tens frames. 	*											
<ul style="list-style-type: none"> States which of two numbers is closer to another number less than 100, eg is 40 closer to 24 or 86. 		*										
<ul style="list-style-type: none"> Reads and writes numerals up to 9999. Counts on and back from any number within the range 0 to 9999. 			*									
<ul style="list-style-type: none"> Renames numbers as groupings of 10's and 100's, eg 4320 is 43 hundreds and 2 tens. 				*								
<ul style="list-style-type: none"> Orders a set of numbers which are less than 9999. Compares the relative size of numbers less than 9999. 					*							
<ul style="list-style-type: none"> Renames numbers as groupings of 10's and 100's, eg 4320 is 43 hundreds and 2 tens. 						*						
<ul style="list-style-type: none"> Trades when using materials, eg 10 tens for 1 hundred, 1 ten for 10 ones. Demonstrates 'trading' using a place value chart. 							*					
<ul style="list-style-type: none"> Counts on and back by 10, 100, 1000,... from a given number. 								*				

**ASSESSMENT TASK FOR STAGE 2
NUMBER 1a: WHOLE NUMBERS**

STAGE1: 2 QUESTIONS

1. Fill in the missing numbers in these number patterns.

a) 3, 6, 9, 12, 15, _____ , 21

b) 22, 20, _____ , 16, 14

2. Is 40 closer to 24 or 86? Circle your answer

24

86

STAGE 2: 5 QUESTIONS

3. a) What is the number immediately before 9 897? _____

b) Now write your answer to a) in words.

4. Circle the answer which correctly renames the number 4350.

43 thousand and 5 tens

4 hundreds, 3 tens and 5 ones

43 hundreds and 5 tens

43 hundreds and 5 ones

5. Which group of numbers are written largest to smallest.

13,240 1,333 1,324 145

1,324 13,240 1,333 145

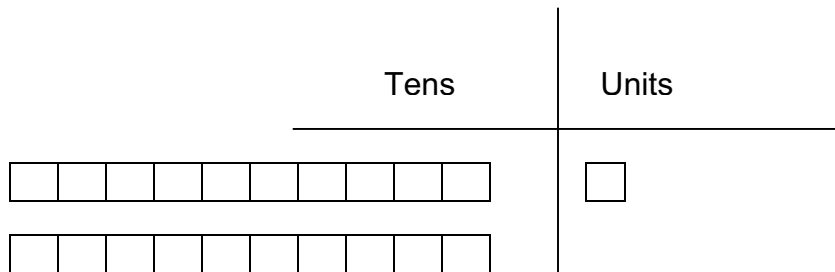
13,240 145 1,333 1,324

13,240 1,333 1,324 145

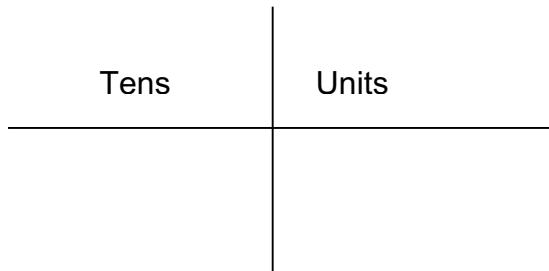
6. Rename the following number so that it is written in groupings of tens and hundreds.

5630

7. A place value chart for the number 21 below is drawn below.



Trade the tens in the place value chart so that there are no numbers in the tens column.



STAGE 3: 1 QUESTION

8. Circle the number which is ten more than 86 990

- 96 990
- 87 000
- 86 999
- 87 990

STAGE 2 OUTCOME ASSESSMENT MAPPING GRID

Stage of Task	2 NUMBER
Outcome	2. Fractions
Outcome Descriptor	Models, compares and orders tenths and hundredths using concrete materials and calculators.
Stage	Number of Indicator Questions
1	2
2	5
3	1

Question	1	2	3	4	5	6	7	8						
Stage	1	2	2	2	2	2	3	3						
Indicator Description														
<ul style="list-style-type: none"> • names the parts remaining, eg three parts were coloured and two parts were not coloured • understands the meaning of half and quarter as quantities. 	*													
<ul style="list-style-type: none"> • represents hundredths and tenths on the calculator and matches with concrete materials 		*												
<ul style="list-style-type: none"> • records tenths and hundredths in words and numerals 			*											
<ul style="list-style-type: none"> • compares two numbers expressed in tenths or hundredths • represents numbers in tenths and hundredths using grids 				*										
<ul style="list-style-type: none"> • shows equivalence of different representations of the same number, eg 3 out of 10 is the same as 3 tenths or 30 hundredths 					*									
<ul style="list-style-type: none"> • shows equivalence of different representations of the same number, eg 3 out of 10 is the same as 3 tenths or 30 hundredths 						*								
<ul style="list-style-type: none"> • records hundredths as common fractions, decimals and percentages 							*							
<ul style="list-style-type: none"> • uses the division key on a calculator to express simple common fractions as decimals. 								*						

ASSESSMENT TASK FOR STAGE 2

NUMBER 2: FRACTIONS

STAGE 1: 1 QUESTION

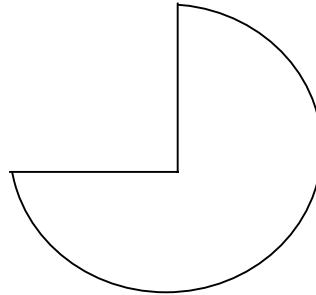
1. Circle the fraction below which indicates how much of the circle is missing

$\frac{1}{2}$

$\frac{3}{4}$

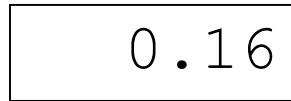
$\frac{1}{4}$

$\frac{5}{8}$

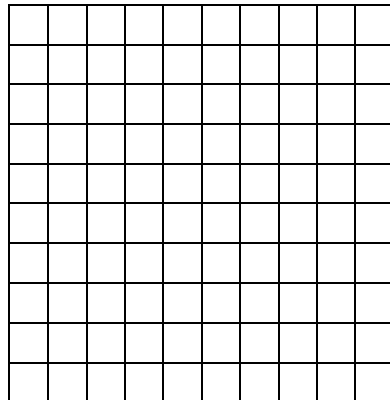


STAGE 2: 6 QUESTIONS

2. The display on my calculator shows



On the hundreds square below colour the correct number of squares which would represent this calculator number. (The grid represents hundredths)

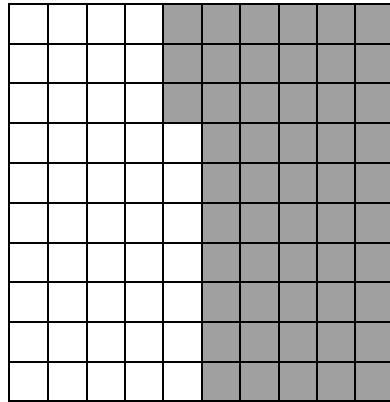


3. Circle the correct set of words for $\frac{23}{100}$

- Twenty-three thousandths
- Twenty tenths and one hundredth
- Twenty-three hundredths

- One hundred and twenty-three tenths

4. a) Circle the decimal that represents the unshaded area of the grid



- 0.47
- 1.00
- 0.53
- 0.67

b) What percentage of the board is shaded?

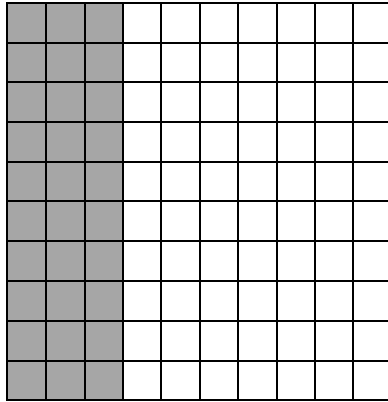
- 50%
- 47%
- 53%
- 10%

5. Circle the word which indicates the type of fraction in the sale sign

- Common fraction
- Percentage
- Decimal

SALE $\frac{1}{3}$ OFF ALL SPORTS SHOES!

6. Examine the hundreds square below. (The grid represents hundredths)



- a) How many hundredths are shaded? _____
- b) How many tenths are shaded? _____

STAGE 3: 2 QUESTIONS

7. Complete the table below.

Fraction	Decimal	Percentage
$\frac{48}{100}$	0.48	48%
$\frac{15}{100}$		
		2%

8. Which set of keys would you press on the calculator to change $\frac{7}{8}$ into a decimal?

- $8 \div 7 =$
- $7 \times 8 =$
- $7 \div 8 =$
- $8 \times 7 =$

STAGE 2 OUTCOME ASSESSMENT MAPPING GRID

Stage of Task	2 NUMBER
Outcome	3. Number Facts
Outcome Descriptor	(a): Models and explains patterns related to number facts for the four operations. (b): Recalls multiplication facts up to 10 x10.
Stage	Number of Indicator Questions
1	2
2	5
3	1

Question	1	1	2	3	4	4	5	6	7	8		
Stage	1	1	1	2	2	2	2	2	2	3		
Indicator Description												
<ul style="list-style-type: none"> Models subtraction facts using discrete materials. 	*											
<ul style="list-style-type: none"> Records subtraction facts in vertical and horizontal arrangements. 		*										
<ul style="list-style-type: none"> Models addition facts using concrete material. Records addition facts in vertical and horizontal arrangements. 			*									
<ul style="list-style-type: none"> Identifies patterns in addition facts and related subtraction facts. 				*								
<ul style="list-style-type: none"> Makes and explains patterns on a hundreds chart by recording the answers for multiplication facts. 					*							
<ul style="list-style-type: none"> Uses a hundreds chart to show and explain the relationship between multiplication facts, eg 2, 4 and 8 times table. 						*						
<ul style="list-style-type: none"> Uses known facts to calculate unknown facts, eg $9 \times 3 = (10 \times 3) - 3$. Completes a tables grid involving facts in random order. 							*					
<ul style="list-style-type: none"> Completes a tables grid involving facts in random order. Uses multiplications fact pairs to reduce the number of facts that needs to be memorised, eg $5 \times 9 = 9 \times 5$. 								*				
<ul style="list-style-type: none"> Identifies patterns in addition facts and related subtraction facts. 									*			
<ul style="list-style-type: none"> Uses known multiplication facts to calculate unknown division facts, eg uses $7 \times 3 = 21$ ($21 \div 7 = 3$) to calculate $42 \div 7 = 6$ 										*		

**ASSESSMENT TASK FOR STAGE 2
NUMBER 3: NUMBER FACTS**

STAGE 1: 2 QUESTIONS

1. Complete these number sentences.



a) 5 frogs take away 2 frogs = _____



b)
$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array}$$

2. Complete the following number sentence.



5 trees plus 3 trees = _____

STAGE 2: 5 QUESTIONS

3. Circle the sentence which describes this number pattern. 15, 12, 9, 6, ...

- The numbers are going up 3 each time.
- 3 is being subtracted from each number.
- Each number is a multiple of 4.
- Each number is being divided by 3.

4. On the hundreds chart below

a) colour the 5x table

b) colour the 9x table up to 9x9

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	79	89	90
91	92	93	94	95	96	97	98	99	100

5. Use the hundreds chart or your knowledge of the multiplication tables to find the answers to

a) $3 \times 9 =$ _____

b) $4 \times 6 =$ _____

c) $9 \times 9 =$ _____

6. Fill in the table below.

X	6	7
6		
7		

7. Look at the numbers below and write the solution for the continuation of the pattern.

$57 - 4 = 53$

$117 - 24 = 93$

$77 - 54 =$ _____

STAGE 3: 1 QUESTION

8. Circle the multiplication fact which would help you calculate

$$54 \div 9 = 6$$

$5 \times 4 = 20$

$3 \times 3 = 9$

$3 \times 9 = 27$

STAGE 2 OUTCOME ASSESSMENT MAPPING GRID

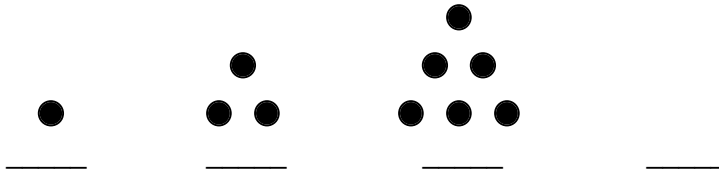
Stage of Task	2 NUMBER
Outcome	4. Number Operations
Outcome Descriptor	<p>(a) Approximates, calculates and represents solutions to addition and subtraction problems involving two-digit numbers, using a variety of informal strategies including mental, written and calculator methods.</p> <p>(b): Uses a variety of informal strategies to approximate, calculate and represent solutions to multiplication and division problems.</p>
Stage	Number of Indicator Questions
1	2
2	5
3	1

Question	1	2	3	4	5	6	7	8				
Stage	1	1	2	2	2	2	2	3				
Indicator Description												
<ul style="list-style-type: none"> • Writes a patterns of numbers to fit a dot pattern. • Continues or fills in number sequences. 	*											
<ul style="list-style-type: none"> • Represents simple adding and subtracting patterns using concrete materials. 		*										
<ul style="list-style-type: none"> • Uses repeated subtraction to solve division problems. 			*									
<ul style="list-style-type: none"> • Uses own strategies to complete addition and subtraction calculations mentally, eg working from left to right. • Counts on (or counts back) using tens and ones to calculate answers to addition or subtraction problems. 				*								
<ul style="list-style-type: none"> • Uses sharing (more than one at a time) to solve division problems. 					*							
<ul style="list-style-type: none"> • Uses multiplication facts to work out division facts. 						*						
<ul style="list-style-type: none"> • Counts on (or counts back) using tens and ones to calculate answers to addition or subtraction problems. 							*					
<ul style="list-style-type: none"> • Compares and orders decimal numbers with up to 2 decimal places. • Counts by ones, tenths or hundredths, on and back from a decimal number. • Adds tenths and hundredths in the decimal form. 								*				

**ASSESSMENT TASK FOR STAGE 2
NUMBER 4: NUMBER OPERATIONS**

STAGE 1: 2 QUESTIONS

1. Draw the next dot pattern in the sequence and write the number of dots on the lines below.



2. Think of 3 addition combinations which add up to 6

_____ + _____ = 6

_____ + _____ = 6

_____ + _____ = 6

STAGE 2: 5 QUESTIONS

3. Circle the two ways from the list below to work out $16 \div 4$.
- Use repeated subtraction of 4 and count the number of 4's subtracted to give you the groups.
 - Use the multiplication fact $4 \times 4 = 16$.
 - Halve 32 then halve 16 to give you four groups
4. John adds 13 and 18 together and gets an answer of 31. Circle the most likely ways he possibly used to get the answer.
- He lined the numbers up under each other and added vertically and carried.
 - He added the tens to get twenty. Then added the 3 and 8 to get 11 then added it to twenty to get 31.
 - Doubled 15 and subtracted it from 61.
 - Subtracted 19 from 50

5. 20 students have to sit at tables in groups of 4 students. Circle the number sentence which you would use to work out how many tables were needed.

$20 \div 4 = 5$

$5 + 5 + 5 + 5 = 20$

$4 \times 5 = 20$

6. Use the multiplication fact 4×4 to match the corresponding division fact.

$16 \div 2 = \underline{\hspace{2cm}}$

$16 \div 4 = \underline{\hspace{2cm}}$

$16 \div 8 = \underline{\hspace{2cm}}$

7. Jenny was to answer the question below by counting back by 10's, then ones. Which would be the correct answer?

$45 - 21 =$

35, 25, 26

34, 24

25, 21

35, 25, 24

STAGE 3: 1 QUESTION

8. Tick the number sentences which are correct. (You may use a calculator)

$0.2 + 0.58 = 0.78$

$2 \times 5 \times 3 = 3 \times 10$

$0.24 \div 6 = 0.44$

$1.3 + 0.67 = 1.67$

$0.32 \times 10 = 3.2$

$0.86 - 0.28 = 1.14$

STAGE 2 OUTCOME ASSESSMENT MAPPING GRID

Stage of Task	2 NUMBER
Outcome	5. Applying Number
Outcome Descriptor	Uses number skills to solve real-life problems (whole numbers only).
Stage	Number of Indicator Questions
1	2
2	5
3	1

Question	1	2	3	4	5	6	7 a	7 b	8			
Stage	1	1	2	2	2	2	2	2	3			
Indicator Description												
<ul style="list-style-type: none"> Recognises any note or coin by size, shape and colour. 	*											
<ul style="list-style-type: none"> Uses coins in canteen or class shops. 		*										
<ul style="list-style-type: none"> Estimates answers by rounding, eg \$4.95 if about \$5 so \$30 will be enough for 6; 119km and 78 km is close to 200km so 160km must be a wrong answer. 			*									
<ul style="list-style-type: none"> Makes an appropriate choice between addition, subtraction, multiplication and division to solve problems. 				*								
<ul style="list-style-type: none"> Uses a calculator when appropriate, eg when numbers are too large for mental or written calculation. 					*							
<ul style="list-style-type: none"> Estimates answers by rounding, eg \$4.95 if about \$5 so \$30 will be enough for 6; 119km and 78 km is close to 200km so 160km must be a wrong answer. 						*						
<ul style="list-style-type: none"> Uses number facts in mental calculation. 							*					
<ul style="list-style-type: none"> Makes an appropriate choice between addition, subtraction, multiplication and division to solve problems. 								*				
<ul style="list-style-type: none"> Predicts the number of possible outfits arising from 3 different t-shirts and 2 different pairs of shorts. 									*			

**ASSESSMENT TASK FOR STAGE 2
NUMBER 5: APPLYING NUMBER**

STAGE 1: 2 QUESTIONS

1. Circle the group of coins which is equal to \$2.00
- 3 x 50c 2 x 20c 1 x 5c
 - 10 x 10c 5 X 20c 1 X 5c
 - 1 x \$1 1 x 50c 1 x \$2
2. I bought a milk drink for \$2.00 using a \$10.00 note. How much change would I receive? Write your answer below.
- _____

STAGE 2: 5 QUESTIONS

3. Round \$4.95 to the nearest whole dollar. Tick the correct answer.
- \$4
 - \$3
 - \$5
 - \$10
4. Ninety apples were shared equally into 10 bags. Find out how many apples were in each bag. Tick the number fact you would use to work out the correct answer.
- $90 + 10$
 - $90 - 10$
 - $90 / 10$
 - 10×90
5. Use a calculator to answer the following questions
- $346 + 25 + 72 =$ _____
- $27 \times 3 =$ _____

6. Circle the nearest whole dollar that would match the rounding of \$4.95.

\$5 \$4 \$3 \$10

7. Add $6 + 12 + 6$.

a) Did you use one of the following methods to find the answer?

Add ($6 + 6 = 12$) ($12 + 12$) =

Multiply 4×6 =

Add ($6 + 12 = 18$) ($18 + 6$) =

b) Write the answer here. _____

STAGE 3: 1 QUESTION

8. If Bill has a blue t-shirt, a white t-shirt and a red t-shirt, and 1 pair of black shorts and 1 pair of denim shorts, tick the number of different outfits he could wear.

9

6

3

5