

West Antarctica	Examples/language/questions/ activities	
Recognise how to scale up and down using multiplication and division.	e.g. 3 oranges cost 24 p; one costs $24 \div 3 = 8$ p; four cost $8 \times 4 = 32$ p	If 3 oranges cost 24p, how much does 1 orange cost?
Use partitioning to divide by tens and ones separately.	e.g. $92 \div 4 = (80 + 12) \div 4 = 20 + 3 + 23$	
Divide by grouping.	e.g. $328 \div 4 =$ a group of 80 fours and a group of 2 fours = 22 fours altogether	
Compensate: add or subtract a multiple of 10 or 100 and adjust.	e.g. $378 + 298 = 378 + 300 - 2$	
Near doubles: double and adjust.	e.g. $2.5 + 2.6 =$ double 2.5 + 0.1	
I can solve addition problems where a number is represented by a letter.	$3 + a = 17$ ($a = 14$ because $17 - 3 = 14$) $b + 8 = 18$ ($b = 10$ because $10 + 8 = 18$) $2b + 8 = 18$ ($b = 5$ because $2 \times 5 = 10$ and $10 + 8 = 18$)	If $3 + a = 17$, what is the value of a? If $b + 8 = 18$, what is the value of b? If $2b + 8 = 18$, what is the value of b?
I can solve subtraction problems where a number is represented by a letter.	$32 - c = 5$ ($c = 27$ because $32 - 5 = 27$) $30 - d = 18$ ($d = 12$ because $30 - 18 = 12$) $30 - 2d = 18$ ($d = 6$ because $2 \times 6 = 12$ and $30 - 12 = 18$) $e - 42 = 8$ ($e = 50$ because $42 + 8 = 50$ and $50 - 42 = 8$)	If $32 - c = 5$, what is the value of c? If $30 - d = 18$, what is the value of d? If $30 - 2d = 18$, what is the value of d? If $e - 42 = 8$, what is the value of e?
I can solve multiplication problems where a number is represented by a letter.	$3f = 12$ ($f = 4$ because $3 \times 4 = 12$) $2 + 4g = 22$ ($g = 5$ because $22 - 2 = 20$ and $20 \div 4 = 5$)	
I can solve division problems where a number is represented by a letter.	$45 \div h = 5$ ($h = 9$ because $45 \div 5 = 9$) $3g \div 4 = 9$ ($g = 12$ because $9 \times 4 = 36$ and $36 \div 3 = 12$)	

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I know the rules of divisibility for multiples of 3	The sum of the digits is divisible by 3 381 ($3+8+1=12$, and $12\div 3 = 4$) Yes 217 ($2+1+7=10$, and $10\div 3 = 3\frac{1}{3}$) No
I know the rules of divisibility for multiples of 4	The last 2 digits are divisible by 4 13 12 is ($12\div 4=3$) Yes 70 19 is not ($19\div 4=4\frac{3}{4}$) No
I know the rules of divisibility for multiples of 6	The number is divisible by both 2 <i>and</i> 3 (it passes both the 2 rule and 3 rule above) 114 (it is even, and $1+1+4=6$ and $6\div 3 = 2$) Yes 308 (it is even, but $3+0+8=11$ and $11\div 3 = 3\frac{2}{3}$) No
I know the rules of divisibility for multiples of 7	Double the last digit and subtract it from a number made by the other digits. The result must be divisible by 7. (We can apply this rule to that answer again) 672 (Double 2 is 4, $67-4=63$, and $63\div 7=9$) Yes 105 (Double 5 is 10, $10-10=0$, and 0 is divisible by 7) Yes 905 (Double 5 is 10, $90-10=80$, and $80\div 7=11\frac{3}{7}$) No
I know the rules of divisibility for multiples of 8	The last three digits are divisible by 8 109 816 ($816\div 8=102$) Yes 216 302 ($302\div 8=37\frac{3}{4}$) No
I know the rules of divisibility for multiples of 9	The sum of the digits is divisible by 9 (Note: This rule can be repeated when needed) 1629 ($1+6+2+9=18$, and again, $1+8=9$) Yes 2013 ($2+0+1+3=6$) No
I know the rules of divisibility for multiples of 12	The number is divisible by both 3 <i>and</i> 4 (it passes both the 3 rule and 4 rule above) 648 (By 3? $6+4+8=18$ and $18\div 3=6$ Yes) (By 4? $48\div 4=12$ Yes) Both pass, so Yes 524 (By 3? $5+2+4=11$, $11\div 3=3\frac{2}{3}$ No) (Don't need to check by 4) No