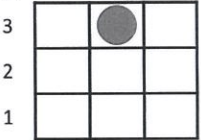
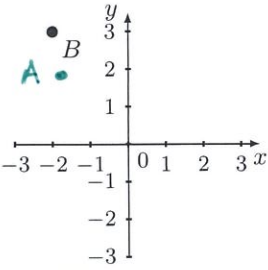
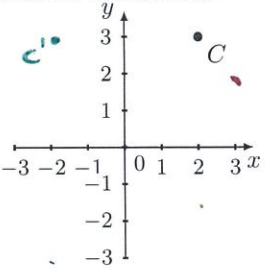
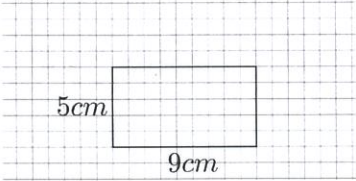
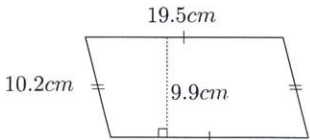
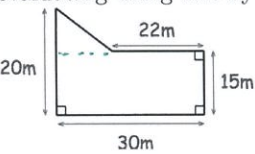
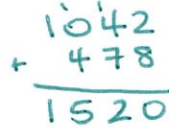
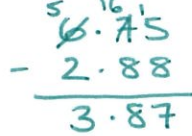
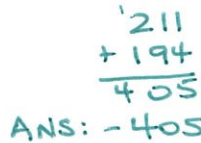
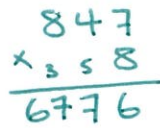
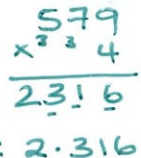
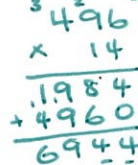
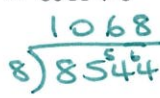
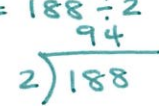
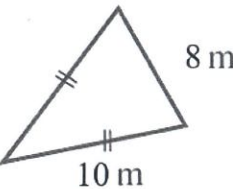
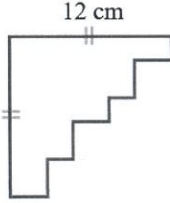
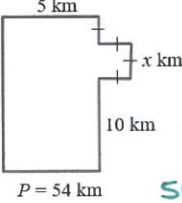




<div> <div>mathsquad</div> <div>Year 7 Topic 4</div> </div>		Name: SOLUTIONS.
Sample Homework Sheet Part 1		Due date:
Step 1: Let's practice some skills from previous topics.		
1A. Calculate a. $8 + 1 = 9$ b. $3 - 2 = 1$	1B. Calculate a. $-3 - 2 = -5$ b. $-1 + 2 = 1$	1C. Calculate a. $-2 - 5 = -7$ b. $6 - 6 = 12$
2A. Calculate a. $5 \times 11 = 55$ b. $30 \div 10 = 3$	2B. Evaluate $6 + 15 \div 5$ $= 6 + 3$ $= 9$	2C. Evaluate $(2 + 7)^2$ $= 9^2$ $= 81$
3A. Substitute $x = 17$ into $x - 7$ and evaluate. $= 17 - 7$ $= 10$	3B. Substitute $x = 21$ into $\frac{x}{7}$ and evaluate. $= \frac{21}{7}$ $= 3$	3C. Substitute $x = 4$ into $8x + 4$ and evaluate. $= 8 \times 4 + 4$ $= 32 + 4$ $= 36$
4A. Solve the following: $x + 2 = 11$ $-2 \quad -2$ $x = 9$	4B. Solve the following: $9x = 45$ $\frac{9x}{9} = \frac{45}{9}$ $x = 5$	4C. Solve the following: $20 = 4(x - 1)$ $\frac{20}{4} = \frac{4(x - 1)}{4}$ $5 = x - 1$ $+1 \quad +1$ $6 = x$ $x = 6$
5A. State the grid reference of the circle below.  B3	5B. Plot the point $A = (-2, 2)$ below and state the coordinates of point B.  $B = (-2, 3)$	5C. The point C is reflected in the y axis. Plot C' , the image of C, and state its coordinates.  $C' = (-2, 2)$
2A. Calculate the area of the rectangle below.  $A = lw$ $= 9 \times 5$ $= 45 \text{ cm}^2$	2B. To the nearest whole number, what is the area the shape below?  $A = bh$ $= 19.5 \times 9.9$ $\approx 193 \text{ cm}^2$	2C. Calculate the area of the shape below by first expressing the area in a single calculation and then evaluating using line by line working.  $A = \text{rectangle} + \text{triangle}$ $= lw + \frac{bh}{2}$ $= 30 \times 15 + \frac{22 \times 20}{2}$ $= 450 + 220$ $= 670 \text{ m}^2$













<div> <div>mathsquad</div> <div>Year 7 Topic 4</div> </div>		Name: SOLUTIONS
Sample Homework Sheet Part 2		Due date:
Step 1: Let's practice some skills from some previous topics.		
1A. What is the place value of the 6 in 0.36? hundredths	1B. Round 65.982 to 1 decimal place (1 dp.) $= 66.0$	1C. Insert $<$, $=$ or $>$ between the decimals. $2.516 < 2.8325$
2A. $850 \div 10 = 85$	2B. $0.6 \div 10 = 0.06$	2C. $0.16 \times 10^3 = 160$
3A. $478 + 1042$ 	3B. $6.75 - 2.88$ 	3C. Evaluate $-211 + 194$  Ans: -17
4A. 8×847 	4B. 5.79×0.4  Ans: 2.316	4C. Evaluate 4.96×14  Ans: 69.44
5A. a. $6 \div 6 = 1$ b. $60 \div 6 = 10$ c. $49 \div 9 = 5 \text{ rem. } 4$	5B. $8544 \div 8$ 	5C. $1.88 \div 0.02$ $\times 100 \quad \times 100$ $= 188 \div 2$ 
6A. Convert 18% to a decimal. $= 18 \div 100$ $= 0.18$	6B. Calculate 70% of 40 $= 0.7 \times 40$ $= 28$	6C. Calculate 93.4% of 4.5 $= 0.934 \times 4.5$ $= 4.203$
1A. Calculate the perimeter of the shape below.  $P = 10 + 10 + 8$ $= 28 \text{ m}$	1B. Calculate the perimeter of the shape below.  $P = 12 \times 4$ $= 48 \text{ cm}$	1C. Find the value of x by creating and solving an appropriate equation.  $P = 54 \text{ km}$ $54 = 6x + 30 + 30$ $24 = 6x$ $\frac{24}{6} = \frac{6x}{6}$ $x = 4$

mathsquad		Year 7 Topic 4 Sample Homework Sheet Part 3	Name: SOLUTIONS Due date:
1A. $7^2 = 7 \times 7 = 49$	1B. $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$	1C. Substitute $r = 2$ into $11r^2$ and evaluate. $= 11 \times 2^2$ $= 11 \times 4$ $= 44$	
2A. List the first 4 positive multiples of 11 11, 22, 33, 44	2BI. Fill in the box to make the equation true. $3 \times \boxed{24} = 72$ $3 \overline{) 72}$	2BII. List the factors of 18 18: 1 2 3 6 9 18 1, 18, 2, 9, 3, 6	2C. List the factors of 102 102: 1 2 3 6 17 34 51 102 1, 102, 2, 51, 3, 34, 6, 17
3A. Circle the words that describe 18. odd <u>even</u> square	3B. Circle the words that describe 48. <u>even</u> square <u>mult. of 3</u>	3C. Write 45 as a product of prime numbers, use powers if there are any repeated factors. $45 = 3 \times 15$ $= 3 \times 3 \times 5$ $= 3^2 \times 5$	
4A. Determine the LCM of 4 and 10. 4: 4, 8, 12, 16, 20 10: 10, 20, 30, 40 LCM(4, 10) = 20	4B. Determine the HCF of 36 and 110. 36: 1 2 3 4 6 9 12 18 36 110: 1 2 5 10 11 22 55 110 HCF(36, 110) = 2	4C. What is the prime factorisation of the LCM of $2^3 \times 5 \times 7$ and $3 \times 5 \times 7^2$? LCM = $2^3 \times 3 \times 5 \times 7^2$	
5A. Calculate $\sqrt{16}$ with the assistance of a multiplication grid. $= \sqrt{4^2}$ $= 4$	5B. $\sqrt{49} = \sqrt{7^2}$ $= 7$	5C. Evaluate $\sqrt{2^4 \times 5^2 \times 7^2}$ $= \sqrt{(2^2)^2 \times 5^2 \times 7^2}$ $= 2^2 \times 5 \times 7$ $= 4 \times 5 \times 7$ $= 140$	




Step 2: The Core Level Skills will be the main focus of Topic 5.											
1A. What fraction is shaded?  $\frac{7}{8}$		1B. Fill in the box to create an equivalent fraction $\frac{7}{8} = \frac{\boxed{28}}{32}$		1C. Fill in the boxes to make each equation true. a. $7 = \frac{\boxed{21}}{\boxed{3}}$ b. $1\frac{2}{3} = \frac{\boxed{5}}{\boxed{3}}$ c. $4\frac{\boxed{1}}{\boxed{3}} = \frac{13}{\boxed{3}}$							
2A. Simplify the following fraction: $\frac{6}{8} = \frac{3}{4}$		2B. Simplify the following fraction: $\frac{12}{30} = \frac{2}{5}$		2C. Put a <, = or > between the fractions. $\frac{5}{18} < \frac{1}{3}$ $\frac{1}{3} = \frac{4}{12}$							
3A. Convert $\frac{6}{100}$ to a decimal. $= 0.06$ (6 hundredths)		3B. Complete the table below <table><tr><td>P</td><td>F</td><td>D</td></tr><tr><td>16%</td><td>$\frac{4}{25}$</td><td>0.16</td></tr></table> $\frac{16}{100} = \frac{4}{25}$		P	F	D	16%	$\frac{4}{25}$	0.16	3C. Express $\frac{1}{6}$ as a recurring decimal. 0.1666 $6 \overline{) 1.0660}$ ANS: $0.\overline{16}$	
P	F	D									
16%	$\frac{4}{25}$	0.16									
4A. $\frac{2}{4} + \frac{1}{4}$ $= \frac{3}{4}$		4B. $\frac{6}{7} - \frac{29}{35}$ $= \frac{6 \times 5}{7 \times 5} - \frac{29}{35}$ $= \frac{30}{35} - \frac{29}{35}$ $= \frac{1}{35}$		4C. $\frac{1}{3} + (-\frac{5}{11})$ $= \frac{1 \times 11}{3 \times 11} - \frac{5 \times 3}{11 \times 3}$ $= \frac{11}{33} - \frac{15}{33}$ $= -\frac{4}{33}$							
5A. $\frac{1}{4} \times \frac{7}{9}$ $= \frac{1 \times 7}{4 \times 9}$ $= \frac{7}{36}$		5B. $\frac{5}{8} \times \frac{2}{3}$ $= \frac{5 \times 2}{8 \times 3}$ $= \frac{5}{4} \times \frac{1}{3}$ $= \frac{5}{12}$		5C. $\frac{24}{84} \times \frac{15}{40}$ $= \frac{24 \div 12}{84 \div 12} \times \frac{15 \div 5}{40 \div 5}$ $= \frac{2}{7} \times \frac{3}{8}$ $= \frac{3}{28}$							
6A. $\frac{3}{4} \div \frac{11}{5}$ $= \frac{3}{4} \times \frac{5}{11}$ $= \frac{15}{44}$		6B. $\frac{6}{12} \div \frac{7}{11}$ $= \frac{1}{2} \times \frac{11}{7}$ $= \frac{11}{14}$		6CI. $3\frac{1}{2} \times 2$ $= \frac{2 \times 3 + 1}{2} \times \frac{2}{1}$ $= \frac{7}{2} \times \frac{2}{1}$ $= 7$							
6CII. Solve $8x + 7 = 29$ $8x + 7 = 29$ $-7 \quad -7$ $8x = 22$ $\frac{8x}{8} = \frac{22}{8}$ $x = \frac{11}{4}$ $x = 2\frac{3}{4}$											
Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.											
1. Kylie walked 4152 steps and Callum walked 2162. How many more steps did Kylie walk than Callum? $4152 - 2162 = 1990$ Kylie walked 1990 more steps.		2. 7 apples cost \$2.45. How much would 5 apples cost? $2.45 \div 7 = 0.35$ 1 apple = 0.35 5 apples = $5 \times 0.35 = \\$1.75$ 5 apples costs \$1.75		3. In the multiplication $PQR \times 3 = QQQ$ each of P, Q and R represents a different digit. What is the sum of P, Q and R? $QQQ \div 3 = PQR$ $111 \div 3 = 37$ $3+7=10$ $222 \div 3 = 74$ $7+4=11$ $333 \div 3 = 111$ $1+1+1=3$ $444 \div 3 = 148$ $1+4+8=13$ P=1 Q=4 R=8 P, Q & R sum to give 8							

		Year 7 Topic 5		Name:	
		Homework Sheet 1		Due date:	
Step 1a: Times tables are all interconnected. Use previous answers to help with questions as needed					
<div> <div>1. $1 \times 8 =$</div> <div>2. $2 \times 8 =$</div> <div>3. $10 \times 8 =$</div> <div>4. $0 \times 8 =$</div> </div> <div> <div>5. $10 \times 8 =$</div> <div>6. $11 \times 8 =$</div> <div>7. $9 \times 8 =$</div> <div>8. $5 \times 8 =$</div> </div> <div> <div>9. $2 \times 2 =$</div> <div>10. $4 \times 2 =$</div> <div>11. $8 \times 2 =$</div> <div>12. $7 \times 2 =$</div> </div> <div> <div>13. $2 \times 9 =$</div> <div>14. $3 \times 9 =$</div> <div>15. $6 \times 9 =$</div> <div>16. $7 \times 9 =$</div> </div> <div> <div>17. $2 \times 4 =$</div> <div>18. $10 \times 4 =$</div> <div>19. $12 \times 4 =$</div> <div>20. $8 \times 4 =$</div> </div> <div> <div>21. $7 \times 6 =$</div> <div>22. $12 \times 11 =$</div> <div>23. $12 \times 6 =$</div> <div>24. $11 \times 11 =$</div> </div>					

Step 2: The Core Level Skills will be the main focus of Topic 5.

<p>1A. What fraction is shaded?</p> 		<p>1B. Fill in the box to create an equivalent fraction</p> $\frac{8}{9} = \frac{\boxed{}}{63}$		<p>1C. Fill in the boxes to make each equation true.</p> <p>a. $10 = \frac{\boxed{}}{5}$ b. $1\frac{\boxed{}}{5} = \frac{6}{5}$</p>							
<p>2A. Simplify the following fraction:</p> $\frac{45}{50} =$		<p>2B. Simplify the following fraction:</p> $\frac{8}{40} =$		<p>2C.  Put a <, = or > between the fractions.</p> $\frac{9}{7} \quad \frac{7}{9}$							
<p>3A. Convert $\frac{8}{10}$ to a decimal.</p>		<p>3B. Complete the table below</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">P</td> <td style="padding: 5px;">F</td> <td style="padding: 5px;">D</td> </tr> <tr> <td style="padding: 5px;">92%</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>		P	F	D	92%			<p>3C.  Express $\frac{5}{9}$ as a recurring decimal.</p>	
P	F	D									
92%											
<p>4A. $\frac{3}{10} + \frac{6}{10}$</p>	<p>4B.  $\frac{1}{3} + \frac{5}{8}$</p>	<p>4C.  $-\frac{2}{8} - \frac{4}{9}$</p>	<p>5A.  $\frac{1}{4} \times \frac{5}{7}$</p>	<p>5B.  $\frac{6}{8} \times \frac{2}{3}$</p>	<p>5C.  $\frac{90}{10} \times \frac{4}{54}$</p>						
<p>6A.  $\frac{4}{7} \div \frac{9}{1}$</p>		<p>6B.  $\frac{2}{7} \div \frac{4}{6}$</p>		<p>6CI.  $3\frac{2}{7} + 1\frac{6}{7}$</p>		<p>6CII.  Solve $6x - 2 = 43$</p>					

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

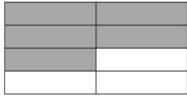
<p>1.  Anna's family spends \$120 a week on groceries. How much does her family spend in 52 weeks?</p>	<p>2.  John and his mum go to the circus. The price of a children's ticket is one-third of the price of an adult ticket. If the total cost of the two tickets is \$108, how much was John's ticket?</p>	<p>3.  An orchadist in Mildura packed oranges into small bags of 8 and large bags of 20. 576 oranges were packed into 48 bags altogether. How many large bags were packed?</p>
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Step 1: Let's practice some skills from some previous topics.

1A. What is the place value of the 9 in 0.3692?	1B. Round 0.61445 to 2 decimal places (2 dp.)	1C. Insert <, = or > between the decimals. 0.401 0.41
2A. $27 \times 10 =$	2B. $4.6 \div 10 =$	2C. $6 \div 10^2 =$
3A. $1441 + 777$	3B. $0.98 + 4.9$	3C. Evaluate $531 + -535$
4A. 291×5	4B. 0.06×2.67	4C. Evaluate 0.14×3.78
5A. a. $40 \div 5 =$ b. $50 \div 5 =$ c. $32 \div 3 =$ rem.	5B. $6984 \div 9$	5CI. $4.68 \div 0.2$
		5CII. Solve $\frac{x}{4} - 1 = 0.3925$
6A. Convert 32% to a decimal.	6B. Calculate 30% of 51	6C. Calculate 120% of 1500
1A. Calculate the perimeter of the shape below. 9 cm $P =$	1B. Calculate the perimeter of the shape below. 10 mm $P =$	1C. Create and solve an equation to find the value of x. $P = 64 \text{ cm}$ $x \text{ cm}$

Step 2: The Core Level Skills will be the main focus of Topic 5.

1A. What fraction is shaded?



1B. Fill in the box to create an equivalent fraction

$$\frac{3}{7} = \frac{\boxed{}}{14}$$

1C. Fill in the boxes to make each equation true.

a. $8 = \frac{\boxed{}}{7}$

b. $5\frac{1}{7} = \frac{\boxed{}}{7}$

2A. Simplify the following fraction:

$$\frac{10}{15} =$$

2B. Simplify the following fraction:

$$\frac{15}{105} =$$

2C. Put a <, = or > between the fractions.

$$\frac{20}{9} \quad 2\frac{2}{9}$$

3A. Convert $\frac{8}{10}$ to a decimal.

3B. Complete the table below

P	F	D
	$\frac{31}{50}$	

3C. Express $\frac{4}{11}$ as a recurring decimal.

4A. $\frac{4}{7} + \frac{2}{7}$

4B. $\frac{2}{3} + \frac{3}{7}$

4C. $\frac{2}{9} + (-\frac{9}{11})$

5A. $\frac{1}{5} \times \frac{9}{11}$

5B. $\frac{1}{3} \times \frac{3}{4}$

5C. $\frac{2}{8} \times \frac{36}{12}$

6A. $\frac{1}{5} \div \frac{11}{9}$

6B. $\frac{1}{6} \div \frac{11}{9}$

6CI. $3\frac{1}{6} \div 6$



6CII. Solve $3x - 5 = 20$

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

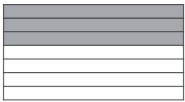











1. If you go out to dinner in a group of 12 and split the bill of \$600 evenly, how much does each pay?

2. A recipe for meatloaf requires 750g of beef mince and 150mL of evaporated milk. If instead 1kg of mince is used, how much evaporated milk will now be required?




3. How many numbers greater than 4000 can be formed with the digits 2, 3, 4, 5 and 6 if no digit is used more than once in the number?

		Year 7 Topic 5		Name:	
		Homework Sheet 3		Due date:	
Step 1a: Times tables are all interconnected. Use previous answers to help with questions as needed					
1. $10 \times 7 =$	5. $10 \times 3 =$	9. $2 \times 5 =$	13. $2 \times 3 =$	17. $2 \times 7 =$	21. $4 \times 5 =$
2. $1 \times 7 =$	6. $11 \times 3 =$	10. $4 \times 5 =$	14. $3 \times 3 =$	18. $10 \times 7 =$	22. $7 \times 10 =$
3. $2 \times 7 =$	7. $9 \times 3 =$	11. $8 \times 5 =$	15. $6 \times 3 =$	19. $12 \times 7 =$	23. $12 \times 10 =$
4. $0 \times 7 =$	8. $5 \times 3 =$	12. $7 \times 5 =$	16. $7 \times 3 =$	20. $8 \times 7 =$	24. $3 \times 3 =$
Step 1b: Let's practice some skills from some previous topics.					
1A. $2^2 =$		1B. $5^3 =$		1C.  Substitute $s = 3$ into $2s^2$ and evaluate.	
2A. List the first 4 positive multiples of 6	2BI. Fill in the box to make the equation true. $3 \times \square = 75$	2BII. List the factors of 50	2C. List the factors of 162		
3A. Circle the words that describe 27. odd even square	3B. Circle the words that describe 69. odd square mult. of 3	3C. Write 86 as a product of prime numbers, use powers if there are any repeated factors.			
4A. Determine the LCM of 2 and 32.	4B. Determine the HCF of 40 and 50.	4C. What is the HCF of $2^2 \times 5^3$ and $2^4 \times 3 \times 5^3$?			
5A. Calculate $\sqrt{25}$ with the assistance of a multiplication grid.	5B. $\sqrt{0} =$	5C. Evaluate $\sqrt{3^2 \times 5^4}$			

Step 2: The Core Level Skills will be the main focus of Topic 5.

<p>1A. What fraction is shaded?</p> 		<p>1B. Fill in the box to create an equivalent fraction</p> $\frac{5}{7} = \frac{\boxed{}}{56}$		<p>1C. Fill in the boxes to make each equation true.</p> <p>a. $4\frac{\boxed{}}{2} = \frac{9}{2}$ b. $5\frac{1}{2} = \frac{\boxed{}}{2}$</p>							
<p>2A. Simplify the following fraction:</p> $\frac{22}{24} =$		<p>2B. Simplify the following fraction:</p> $\frac{18}{24} =$		<p>2C.  Put a <, = or > between the fractions.</p> $\frac{10}{13} \quad \frac{20}{27}$							
<p>3A. Convert $\frac{3}{100}$ to a decimal.</p>		<p>3B. Complete the table below</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 33%;">P</td> <td style="width: 33%;">F</td> <td style="width: 33%;">D</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td>0.06</td> </tr> </table>		P	F	D			0.06	<p>3C.  Express $\frac{11}{12}$ as a recurring decimal.</p>	
P	F	D									
		0.06									
<p>4A. $\frac{3}{6} + \frac{2}{6}$</p>	<p>4B.  $\frac{3}{7} - \frac{2}{9}$</p>	<p>4C.  $-\frac{9}{12} - (-\frac{2}{3})$</p>	<p>5A.  $\frac{1}{4} \times \frac{9}{11}$</p>	<p>5B.  $\frac{3}{7} \times \frac{6}{8}$</p>	<p>5C.  $\frac{90}{120} \times \frac{72}{36}$</p>						
<p>6A.  $\frac{1}{3} \div \frac{9}{5}$</p>		<p>6B.  $\frac{3}{12} \div \frac{9}{2}$</p>		<p>6C.  $2\frac{2}{3} \div \frac{1}{3}$</p>							
<p>6CII.  Solve $5x + 5 = 41$</p>											

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

<p>1.  Paul plans to read 90 pages each day. So far today, he has read only 16 pages. How many more pages does Paul need to read to reach his goal?</p>	<p>2.  A twelve pack of 250mL Up&Gos costs \$12. What is the cost per litre?</p>	<p>3.  A painter, standing on a rung of a ladder, notices that there are twice as many rungs below the rung she is standing on as above it. After descending eight rungs she notices that the number of rungs below and above the rung she is on are equal. How many rungs are on the ladder?</p>
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Step 1: Let's practice some skills from previous topics.

1A. Calculate

a. $2 + 6 =$

b. $7 - 2 =$

1B. Calculate

a. $-1 - 3 =$

b. $2 - 7 =$

1C. Calculate

a. $-1 - -3 =$

b. $-4 + -2 =$


2A. Calculate


a. $7 \times 11 =$


b. $55 \div 5 =$


2B.  Evaluate $5 \times 5 + 3$

2C.  Evaluate $21 - 3^2$


3A.  Substitute $x = 4$ into $x + 10$ and evaluate.

3B.  Substitute $x = 5$ into $4x$ and evaluate.


3C.  Substitute $x = 24$ into $\frac{x}{4} - 4$ and evaluate.

4A.  Solve the following:

$$x + 6 = 14$$

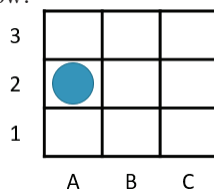
4B.  Solve the following:

$$\frac{x}{3} = 6$$

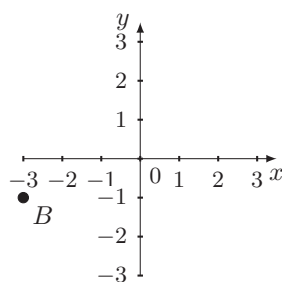
4C.  Solve the following:

$$3 = \frac{x}{8} - 5$$

5A. State the grid reference of the circle below.

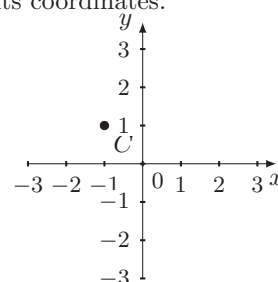


5B. Plot the point $A = (3, -2)$ below and state the coordinates of point B.




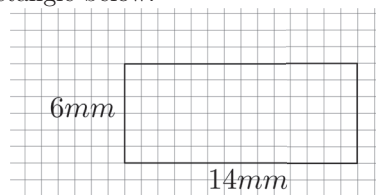
$B = (\quad , \quad)$

5C. The point C is translated 2 units down. Plot C' , the image of C , and state its coordinates.




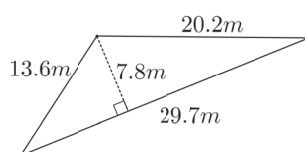
$C' =$

2A.  Calculate the area of the rectangle below.




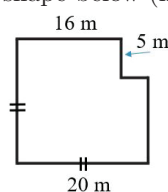
$A =$

2B.  To the nearest whole number, what is the area the shape below?



$A =$

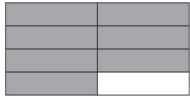
2C.  Calculate the area of the shape below (line by line working).



$A =$

Step 2: The Core Level Skills will be the main focus of Topic 5.

1A. What fraction is shaded?



1B. Fill in the box to create an equivalent fraction

$$\frac{1}{8} = \frac{\boxed{}}{40}$$

1C. Fill in the boxes to make each equation true.

a. $8 = \frac{\boxed{}}{4}$

b. $5\frac{\boxed{}}{4} = \frac{21}{4}$

2A. Simplify the following fraction:

$$\frac{2}{8} =$$

2B. Simplify the following fraction:

$$\frac{15}{105} =$$

2C. Put a <, = or > between the fractions.

$$\frac{10}{15} \quad \frac{2}{3}$$

3A. Convert $\frac{1}{10}$ to a decimal.

3B. Complete the table below

P	F	D
		0.64

3C. Express $\frac{1}{9}$ as a recurring decimal.

4A. $\frac{2}{5} + \frac{1}{5}$

4B. $\frac{2}{3} + \frac{7}{9}$

4C. $-\frac{2}{3} - (-\frac{5}{7})$

5A. $\frac{3}{4} \times \frac{5}{7}$

5B. $\frac{5}{8} \times \frac{4}{11}$

5C. $\frac{10}{45} \times \frac{7}{42}$

6A. $\frac{1}{5} \div \frac{3}{2}$

6B. $\frac{2}{6} \div \frac{12}{2}$

6CI. $2\frac{3}{5} + 1\frac{4}{5}$



6CII. Solve $49 = 6x + 10$

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

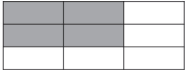











1. Keira has 423 points in Angry Birds and Alex has 143. How many more points does Alex need meet Keira's score?

2. Nutella costs 92c per 100g. At this rate, how much does a 625g jar of Nutella cost?




3. What is the remainder when 7^{1983} is divided by 100?

		Year 7 Topic 5		Name:	
		Homework Sheet 5		Due date:	
Step 1a: Times tables are all interconnected. Use previous answers to help with questions as needed					
<div> <div>1. $1 \times 10 =$</div> <div>5. $10 \times 4 =$</div> <div>9. $2 \times 2 =$</div> <div>13. $2 \times 2 =$</div> <div>17. $2 \times 6 =$</div> <div>21. $3 \times 3 =$</div> </div> <div> <div>2. $2 \times 10 =$</div> <div>6. $11 \times 4 =$</div> <div>10. $4 \times 2 =$</div> <div>14. $3 \times 2 =$</div> <div>18. $10 \times 6 =$</div> <div>22. $4 \times 3 =$</div> </div> <div> <div>3. $10 \times 10 =$</div> <div>7. $9 \times 4 =$</div> <div>11. $8 \times 2 =$</div> <div>15. $6 \times 2 =$</div> <div>19. $12 \times 6 =$</div> <div>23. $6 \times 11 =$</div> </div> <div> <div>4. $0 \times 10 =$</div> <div>8. $5 \times 4 =$</div> <div>12. $7 \times 2 =$</div> <div>16. $7 \times 2 =$</div> <div>20. $8 \times 6 =$</div> <div>24. $7 \times 7 =$</div> </div>					
Step 1b: Let's practice some skills from some previous topics.					
1A. $3^2 =$		1B. $0^5 =$		1C.  Substitute $a = 2$ into $8a^2$ and evaluate.	
2A. List the first 7 positive multiples of 9	2BI. Fill in the box to make the equation true. $3 \times \square = 69$	2BII. List the factors of 24	2C. List the factors of 135		
3A. Circle the words that describe 10. odd even square	3B. Circle the words that describe 20. even square mult. of 5	3C. Write 46 as a product of prime numbers, use powers if there are any repeated factors.			
4A. Determine the LCM of 11 and 7.	4B. Determine the HCF of 63 and 72.	4C. What is the prime factorisation of the LCM of $2^2 \times 3^3 \times 5$ and $3^2 \times 5^3 \times 7$?			
5A. Calculate $\sqrt{9}$ with the assistance of a multiplication grid.	5B. $\sqrt{49} =$	5C. Evaluate $\sqrt{2^6 \times 5^2 \times 7^2}$			

Step 2: The Core Level Skills will be the main focus of Topic 5.

<p>1A. What fraction is shaded?</p> <div style="text-align: center;">  </div>		<p>1B. Fill in the box to create an equivalent fraction</p> $\frac{8}{9} = \frac{\boxed{}}{81}$		<p>1C. Fill in the boxes to make each equation true.</p> <p>a. $6\frac{\boxed{}}{3} = \frac{19}{3}$ b. $7\frac{2}{3} = \frac{\boxed{}}{3}$</p>							
<p>2A. Simplify the following fraction:</p> $\frac{6}{14} =$		<p>2B. Simplify the following fraction:</p> $\frac{48}{60} =$		<p>2C.  Put a <, = or > between the fractions.</p> $\frac{11}{4} \qquad 2\frac{5}{9}$							
<p>3A. Convert $\frac{7}{100}$ to a decimal.</p>		<p>3B. Complete the table below</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 33%;">P</td> <td style="width: 33%;">F</td> <td style="width: 33%;">D</td> </tr> <tr> <td> </td> <td>$\frac{3}{10}$</td> <td> </td> </tr> </table>		P	F	D		$\frac{3}{10}$		<p>3C.  Express $\frac{7}{9}$ as a recurring decimal.</p>	
P	F	D									
	$\frac{3}{10}$										
<p>4A. $\frac{5}{7} + \frac{1}{7}$</p>	<p>4B.  $\frac{2}{3} + \frac{5}{7}$</p>	<p>4C.  $-\frac{1}{2} - \frac{1}{2}$</p>	<p>5A.  $\frac{2}{3} \times \frac{7}{5}$</p>	<p>5B.  $\frac{5}{7} \times \frac{1}{6}$</p>	<p>5C.  $\frac{10}{36} \times \frac{108}{30}$</p>						
<p>6A.  $\frac{3}{5} \div \frac{11}{4}$</p>		<p>6B.  $\frac{4}{7} \div \frac{8}{3}$</p>		<p>6CI.  $3\frac{1}{3} \div 2$</p>		<p>6CII.  Solve $32 = 3x + 7$</p>					













Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

<p>1.  Tim Tams come in packets of 11. Samar wants to give one Tim Tam to each of his 33 class mates. What is the least number of packets that Samar needs to buy?</p>	<p>2.  Sam is paid the same amount for each house he cleans. He gets paid \$180 for cleaning 3 houses. How many houses does Sam need to clean to get paid \$300?</p>	<p>3.  A tap drips at a rate of one drop of water every second. If it takes 600 such drops to fill a 100mL bottle, how many litres of water would be wasted in 300 days?</p>
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Step 1: Let's practice some skills from some previous topics.



1A. What is the place value of the 1 in 5.81?		1B. Round 3.735 to 1 decimal place (1 dp.)		1C. Insert <, = or > between the decimals. <div>4.8 4.63</div>	
2A. $860 \div 10 =$		2B. $3.3 \div 10 =$		2C. $0.9 \div 10^4 =$	
3A. $1295 + 354$		3B. $4.87 - 1.9$		3C. Evaluate $-342 + -203$	
4A. 219×8		4B. 1.55×0.2		4C. Evaluate 0.34×55.7	
5A. a. $20 \div 10 =$ b. $12 \div 2 =$ c. $30 \div 4 =$ rem.		5B. $2164 \div 4$		5CI. $1.6 \div 0.4$ 5CII. Solve $\frac{x}{2} + 5 = 19.65$	
6A. Convert 81% to a decimal.		6B. Calculate 30% of 33		6C. Calculate 0.6% of 6.6	
1A. Calculate the perimeter of the shape below. $P =$		1B. Calculate the perimeter of the shape below. $P =$		1C. Create and solve an equation to find the value of x . $P = 92\text{ m}$	

Step 2: The Core Level Skills will be the main focus of Topic 5.













<p>1A. What fraction is shaded?</p> 	<p>1B. Fill in the box to create an equivalent fraction</p> $\frac{4}{5} = \frac{\boxed{}}{35}$	<p>1C. Fill in the boxes to make each equation true.</p> <p>a. $1 = \frac{\boxed{}}{5}$ b. $3\frac{1}{5} = \frac{\boxed{}}{5}$</p>						
<p>2A. Simplify the following fraction:</p> $\frac{20}{55} =$	<p>2B. Simplify the following fraction:</p> $\frac{24}{32} =$	<p>2C.  Put a <, = or > between the fractions.</p> $\frac{8}{9} \quad \frac{12}{14}$						
<p>3A. Convert $\frac{3}{100}$ to a decimal.</p>	<p>3B. Complete the table below</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">P</td> <td style="padding: 5px;">F</td> <td style="padding: 5px;">D</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;">0.1</td> </tr> </table>	P	F	D			0.1	<p>3C.  Express $\frac{5}{11}$ as a recurring decimal.</p>
P	F	D						
		0.1						
<p>4A. $\frac{3}{8} + \frac{2}{8}$</p>	<p>4B.  $\frac{4}{9} + \frac{2}{27}$</p>	<p>4C.  $-\frac{1}{3} + \frac{4}{7}$</p>	<p>5A.  $\frac{2}{9} \times \frac{4}{5}$</p>	<p>5B.  $\frac{2}{5} \times \frac{2}{4}$</p>	<p>5C.  $\frac{8}{88} \times \frac{30}{24}$</p>			
<p>6A.  $\frac{7}{10} \div \frac{5}{3}$</p>	<p>6B.  $\frac{8}{9} \div \frac{6}{2}$</p>	<p>6CI.  $2\frac{3}{5} \div 6$</p>	<p>6CII.  Solve $11 = 2x + 8$</p>					

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.




<p>1.  There are 5420 golf balls to be packed into boxes of 25. How many boxes will be filled completely?</p>	<p>2.  Ben has 2 identical pizzas. He cuts one pizza equally into 4 slices. He then cuts the other pizza equally into 8 small slices. A large slice weighs 32 grams more than a small slice. What is the mass on one whole pizza?</p>	<p>3.  A four digit number is written on a piece of paper. Vladimir spilled ink on it and now the last two numbers are no longer visible. The first two digits are 8 and 6, and the four digit number is known to be divisible by 3, by 4 and by 5. What is the sum of the two hidden digits?</p>
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		Year 7 Topic 5 Homework Sheet 7		Name: Due date:	
Step 1a: Times tables are all interconnected. Use previous answers to help with questions as needed					
1. $1 \times 7 =$		5. $10 \times 8 =$		9. $2 \times 2 =$	
2. $2 \times 7 =$		6. $11 \times 8 =$		10. $4 \times 2 =$	
3. $10 \times 7 =$		7. $9 \times 8 =$		11. $8 \times 2 =$	
4. $0 \times 7 =$		8. $5 \times 8 =$		12. $7 \times 2 =$	
13. $2 \times 1 =$		14. $3 \times 1 =$		15. $6 \times 1 =$	
17. $2 \times 12 =$		18. $10 \times 12 =$		19. $12 \times 12 =$	
21. $6 \times 7 =$		22. $7 \times 12 =$		23. $4 \times 4 =$	
24. $8 \times 8 =$		16. $7 \times 1 =$		20. $8 \times 12 =$	
1A. $10^2 =$		1B. $4^1 =$		1C.  Substitute $c = 3$ into $(2c)^2$ and evaluate.	
2A. List the first 4 positive multiples of 6		2BI. Fill in the box to make the equation true. $5 \times \square = 125$		2BII. List the factors of 56	
				2C. List the factors of 123	
3A. Circle the words that describe 9. odd even square		3B. Circle the words that describe 50. even square mult. of 2		3C. Write 55 as a product of prime numbers, use powers if there are any repeated factors.	
4A. Determine the LCM of 5 and 20.		4B. Determine the HCF of 8 and 24.		4C. What is the HCF of $2^2 \times 3^3 \times 5$ and $3^2 \times 5^3 \times 7$?	
5A. Calculate $\sqrt{4}$ with the assistance of a multiplication grid.		5B. $\sqrt{81} =$		5C. Evaluate $\sqrt{2^4 \times 3^2 \times 5^2}$	

Step 2: The Core Level Skills will be the main focus of Topic 5.

<p>1A. What fraction is shaded?</p> 	<p>1B. Fill in the box to create an equivalent fraction</p> $\frac{1}{2} = \frac{\boxed{}}{16}$	<p>1C. Fill in the boxes to make each equation true.</p> <p>a. $2\frac{\boxed{}}{7} = \frac{16}{7}$ b. $6\frac{4}{7} = \frac{\boxed{}}{7}$</p>						
<p>2A. Simplify the following fraction:</p> $\frac{6}{10} =$	<p>2B. Simplify the following fraction:</p> $\frac{30}{100} =$	<p>2C.  Put a <, = or > between the fractions.</p> $\frac{6}{13} \quad \frac{28}{60}$						
<p>3A. Convert $\frac{4}{10}$ to a decimal.</p>	<p>3B. Complete the table below</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">P</td> <td style="padding: 5px;">F</td> <td style="padding: 5px;">D</td> </tr> <tr> <td style="padding: 5px;">28%</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>	P	F	D	28%			<p>3C.  Express $\frac{2}{3}$ as a recurring decimal.</p>
P	F	D						
28%								
<p>4A. $\frac{2}{7} + \frac{4}{7}$</p>	<p>4B.  $\frac{2}{6} + \frac{21}{30}$</p>	<p>4C.  $-\frac{2}{4} - (-\frac{6}{8})$</p>	<p>5A.  $\frac{3}{5} \times \frac{4}{11}$</p>	<p>5B.  $\frac{4}{7} \times \frac{1}{2}$</p>	<p>5C.  $\frac{5}{36} \times \frac{24}{27}$</p>			
<p>6A.  $\frac{2}{5} \div \frac{9}{7}$</p>	<p>6B.  $\frac{3}{4} \div \frac{2}{5}$</p>	<p>6CI.  $3\frac{3}{5} \div 2$</p>	<p>6CII.  Solve $9 = 4x - 2$</p>					

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

<p>1.  In a dance school there are 13 more girls than boys. If there are 49 girls at the dance school, how many boys are there?</p>	<p>2.  John and his mum go to the movies. The price of a children's ticket is half the price of an adult ticket. If the total cost of the two tickets is \$37.50, how much was John's ticket?</p>	<p>3.  A class of nine kindergarten children is to be taken for a walk each afternoon. The teacher decides that they will walk in sets of three, and any pair of children will walk together on one day only. How many days can this system last?</p>
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Step 1: Let's practice some skills from previous topics.

1A. Calculate

a. $1 + 7 =$

b. $10 - 1 =$

1B. Calculate

a. $1 - 3 =$

b. $-4 + 9 =$

1C. Calculate

a. $-3 - -6 =$

b. $-2 + -2 =$


2A. Calculate


a. $12 \times 0 =$


b. $84 \div 7 =$


2B.  Evaluate $4 \times (6 - 2)$

2C.  Evaluate $1^5 - 21$


3A.  Substitute $x = 8$ into $x + 7$ and evaluate.

3B.  Substitute $x = 24$ into $\frac{x}{4}$ and evaluate.


3C.  Substitute $x = 54$ into $\frac{x}{6} - 5$ and evaluate.

4A.  Solve the following:

$$x + 8 = 13$$

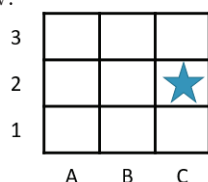
4B.  Solve the following:

$$\frac{x}{8} = 2$$

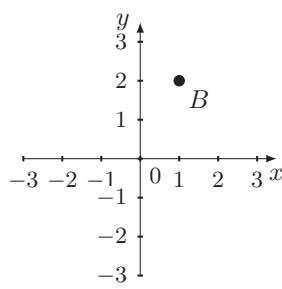
4C.  Solve the following:

$$5x - 22 = 3$$

5A. State the grid reference of the star below.

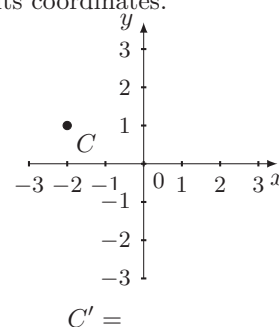


5B. Plot the point $A = (-2, 1)$ below and state the coordinates of point B.




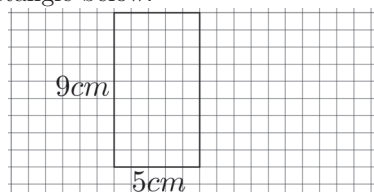
$B = (\quad , \quad)$

5C. The point C is translated 2 units down. Plot C' , the image of C , and state its coordinates.




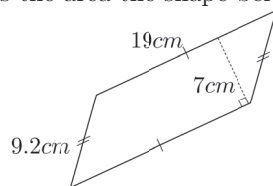
$C' =$

2A.  Calculate the area of the rectangle below.




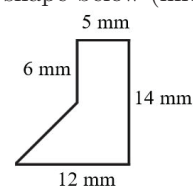
$A =$

2B.  To the nearest whole number, what is the area the shape below?



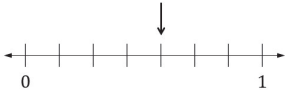











$A =$

2C.  Calculate the area of the shape below (line by line working).






$A =$

Step 2: The Core Level Skills will be the main focus of Topic 5.

1A. What fraction is shaded?		1B. Fill in the box to create an equivalent fraction		1C. Fill in the boxes to make each equation true.							
		$\frac{2}{3} = \frac{\square}{6}$		a. $2 = \frac{\square}{3}$ b. $3\frac{\square}{3} = \frac{10}{3}$							
2A. Simplify the following fraction:		2B. Simplify the following fraction:		2C.  Put a <, = or > between the fractions.							
$\frac{35}{55} =$		$\frac{16}{72} =$		$\frac{5}{7}$ $\frac{14}{21}$							
3A. Convert $\frac{3}{10}$ to a decimal.		3B. Complete the table below		3C.  Express $\frac{8}{9}$ as a recurring decimal.							
		<table border="1"><tr><td>P</td><td>F</td><td>D</td></tr><tr><td></td><td></td><td>0.7</td></tr></table>		P	F	D			0.7		
P	F	D									
		0.7									
4A. $\frac{2}{4} + \frac{1}{4}$	4B.  $\frac{5}{7} + \frac{1}{9}$	4C.  $-\frac{3}{8} + \frac{4}{5}$	5A.  $\frac{3}{4} \times \frac{7}{11}$	5B.  $\frac{7}{9} \times \frac{4}{7}$	5C.  $\frac{12}{30} \times \frac{15}{40}$						
6A.  $\frac{1}{5} \div \frac{9}{7}$		6B.  $\frac{3}{8} \div \frac{11}{9}$		6C.I.  $4\frac{2}{5} + 1\frac{4}{5}$							
				6C.II.  Solve $11 = 3x - 6$							

Step 3: Complete these worded questions of increasing difficulty. You may use a calculator at any time.

<p>1.  Benny bought 585 crayons that came in packs of 15. How many packs of crayons did Benny buy?</p>	<p>2.  An adult can walk at a rate of 6km per hour. At this speed, how long would it take an adult to walk 15km?</p>	<p>3.  At a school play adults were charged 75c and students 25c. \$330 was collected altogether. The play was held in a 600 seat theatre and was not filled. What is the minimum number of adults who attended?</p>
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