Antelope Class
Maths
Week 5 learning- 18.5.20

Multiplication

Hello Antelopes, well done and thank you for all of your hard work on addition and subtraction. This week, we are going to revisit multiplication. It has been a pleasure to see more emails with pictures of your work come through to the class email. Keep sending them to antelopes@bratton.wilts.sch.uk, every few days or at the end of the week. There are 5 lessons, which will last approximately 30-40 minutes. If you finish before, please make use of Mathletics and Professor Assessor.

Thank you, Miss McMillan and Mrs Smith.

Challenge 1, 2 and 3

Throughout the week, there are activities with three levels of challenge.

Please select the **one** you would like to complete, you do not have to do all of them.

If you start on one and realise you would like more of a challenge, complete a few questions on the level above.

The answers for some of the activities are at the back of this learning guide.

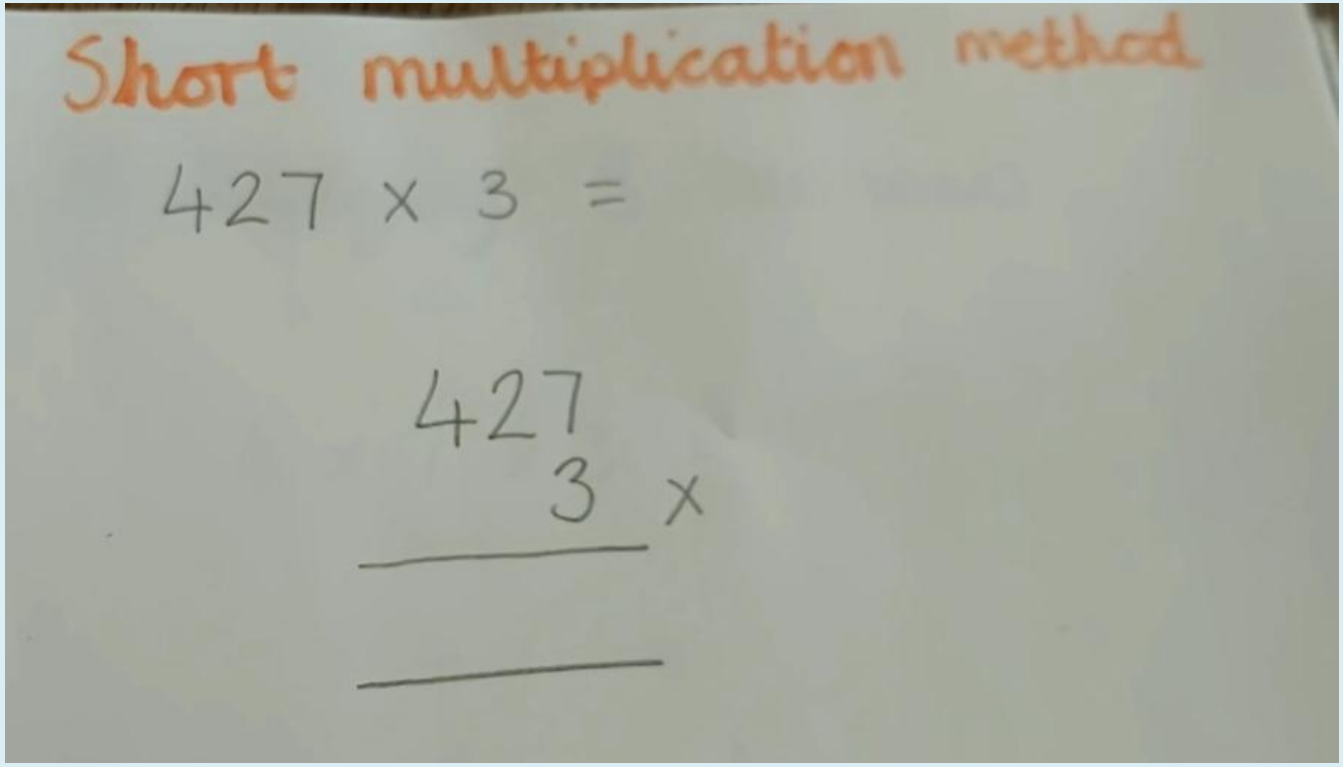
Lesson 1

To use the short multiplication method.

Activity 1: Log onto Professor Assessor and complete the times tables test and practise.

Please watch the video to see how to use the short multiplication method to answer the questions on the next slide:

https://youtu.be/yyOeBsCrLc8



Activity 2: Multiply 3 and 4 digit numbers by 1 digit.

Please select challenge 1, 2 or 3 to complete.

1.

1. 132 x 2 =
2. 242 x 5 =
3. 842 x 2 =
4. 213 x 3 =
5. 354 x 2 =
6. 541 x 5 =
7. 473 x 2 =
8. 654 x 5 =

2.

1. 856 x 4 =
2. 364 x 6 =
3. 947 x 3 =
4. 846 x 7 =
5. 471 x 6 =
6. 376 x 8 =
7. 7453 x 4 =
8. 3928 x 7 =

3.

1. 745 x 9 =
2. 453 x 8 =
3. 3271 x 6 =
4. 9624 x 4 =
5. 7635 x 7 =
6. 4746 x 3 =
7. 3872 x 6 =
8. 7591 x 8 =

Activity 3- Challenge questions:

1.

Spot the mistake

Alex and Dexter have both completed the same multiplication.

Alex

	H	T	O
	2	3	4
×			6
1	2	0	4
	2	2	

Dexter

	H	T	O
	2	3	4
×			6
1	4	0	4
	2	2	

Who has the correct answer?
What mistake has been made by one of the children?

2.

Alex calculated 1,432 × 4

Here is her answer.

	Th	H	T	O
	1	4	3	2
×				4
	4	16	12	8

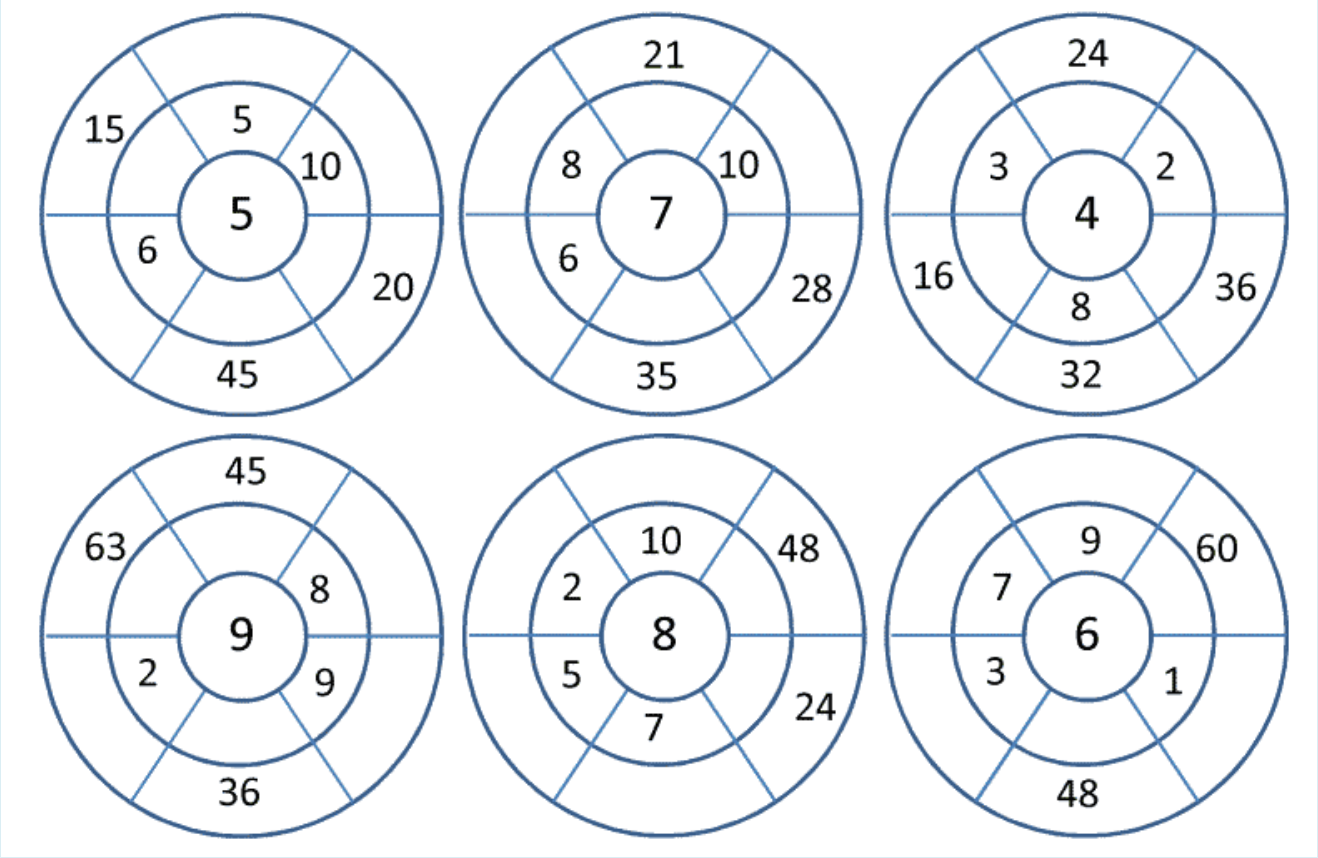
1,432 × 4 = 416,128

Can you explain what Alex has done wrong?

Lesson 2

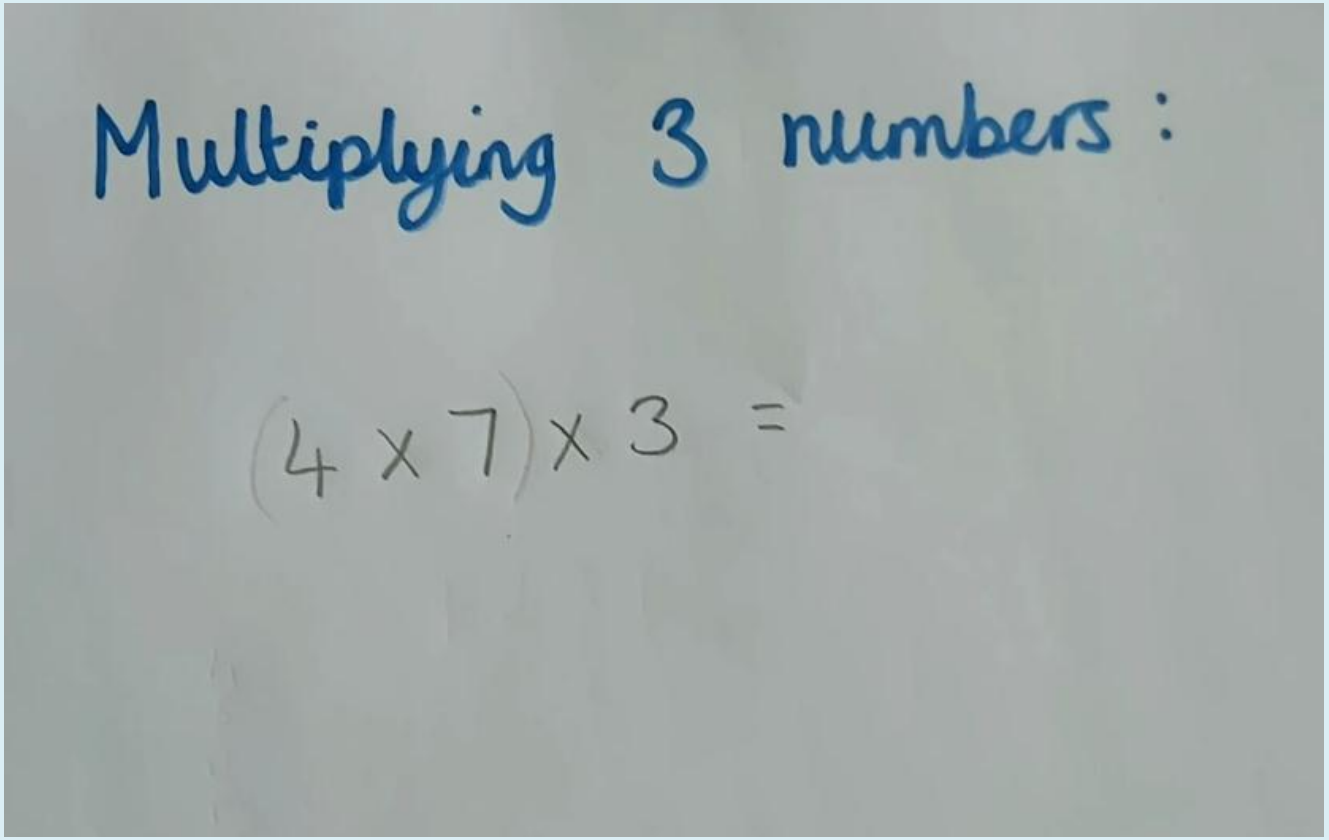
To multiply three numbers.

Activity 1: Multiply the centre number with the inner circle to find the outer number.



Please watch the video to see how to multiply 3 numbers:

https://youtu.be/68OEStvZmk0



Activity 2- Multiply the 3 numbers.
Remember to use brackets to help you.

Worksheet 1:

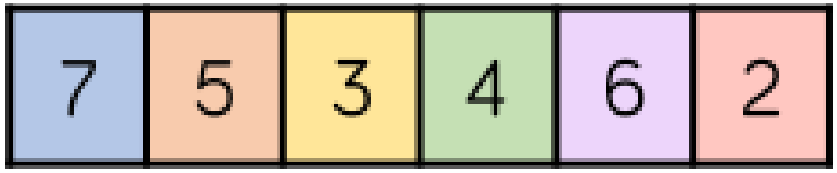
1. 2 x 3 x 4 =
2. 5 x 4 x 1 =
3. 4 x 6 x 4 =
4. 3 x 7 x 5 =
5. 3 x 4 x 6 =
6. 6 x 5 x 2 =
7. 4 x 8 x 6 =

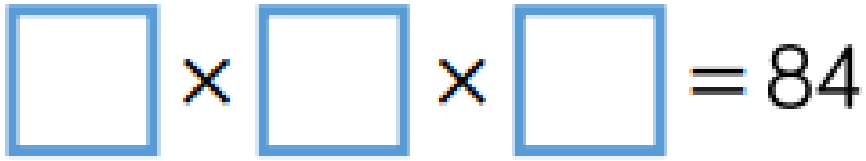
Worksheet 2:

1. 9 x 7 x 6 =
2. 13 x 5 x 3 =
3. 23 x 4 x 7 =
4. 31 x 3 x 6 =
5. 42 x 5 x 4 =
6. 54 x 6 x 3 =
7. 67 x 5 x 7 =

Extension question:

Make the target number of 84 using three of the digits below.





Multiply the remaining three digits together, what is the product of the three numbers?

Lesson 3

To answer multiplication word problems.

Activity 1:

Practise your times tables by saying them aloud.

Focus on the 6, 7 and 9 times tables.

6 times table

1x6= 6
2x6=12
3x6=18
4x6=24
5x6=30
6x6=36
7x6=42
8x6=48
9x6=54
10x6=60
11x6=66
12x6=72

7 times table

1x7= 7
2x7=14
3x7=21
4x7=28
5x7=35
6x7=42
7x7=49
8x7=56
9x7=63
10x7=70
11x7=77
12x7=84

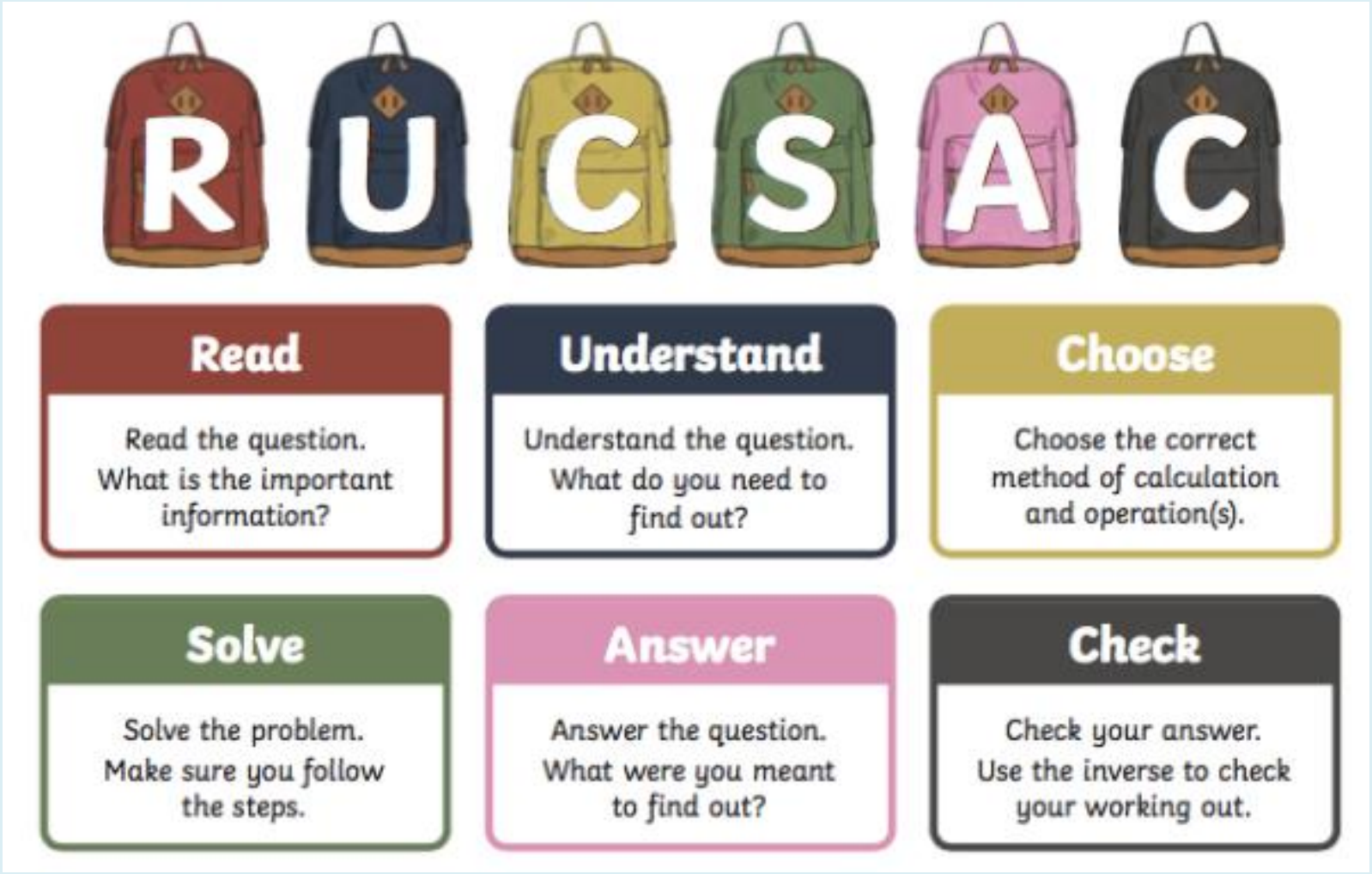
9 times tables

1x9= 9
2x9= 18
3x9= 27
4x9= 36
5x9= 45
6x9= 54
7x9= 63
8x9= 72
9x9= 81
10x9= 90
11x9= 99
12x9=108

You can practise them using the following links to support you:
https://www.topmarks.co.uk/maths-games/hit-the-button

6 x table song :
https://www.youtube.com/watch?v=e7rYbk9PNuM
7 x table song:
https://www.youtube.com/watch?v=5XT3vxohtBg
9 x table song:
https://www.youtube.com/watch?v=SmRr86Y188w

Remember to use the RUCSAC method to answer the following word problems, written by Mrs Smith. There is a worksheet 1 and 2. Please choose **one** of them to complete.



Activity 2 - Worksheet 1:

1. Mrs Smith is putting books away in the library. There are **7** shelves, and each holds **32** books. How many books can she fit on the shelves altogether?
2. Miss Shaw is preparing for an art lesson. She can carry **12** pots of paint at a time. She makes **8** trips to the stationery cupboard. How many pots of paint does she have altogether?
3. Antelope class have earned **14** pebbles for their jar every day this week! How many pebbles have they accumulated over the **5** days?
4. It is Wednesday, and the cook has **126** children booked in for a roast dinner. They will get **3** roast potatoes each. How many potatoes does she need to peel in total?
5. FOBS have organised a movie night. There are **109** children attending. They all get **3** mini sausages in their hot dogs. How many sausages do they have to buy in total?
6. Bratton School has booked **4** buses for a school trip. There are enough spaces for **4** adults and **34** children on each bus. The buses are full. How many people are there altogether on the trip?

Activity 2- Worksheet 2:

1. In assembly, year 6 put out **3** rows of **12** chairs. They do this **4** times in a week. How many chairs do they put out in total, across the week?
2. There are **143** children in school today. They are each given **3** letters to take home at the end of the day. How many letters, in total, did Mrs Bunce have to print?
3. They have run out of bread in Breakfast Club. Mrs Harvey needs to buy enough bread for the whole school week. There will be **22** children in for each of the **5** days, with each child having **2** slices each per day. How many slices will she need altogether?
4. Mrs Midgley is buying marshmallows for Forest School. She has **8** groups of **4** children. They will have **4** marshmallows each to toast on the campfire. How many marshmallows should she buy for the children? How many should she buy if she wants to join them?
5. In Cake Decorating club, Mrs Smith is sorting decorations. She has **12** children at the club this week and they will each have **3** decorations for each of their **4** cupcakes. How many decorations will she need?
6. At the KS1 sports day there are **12** races with **6** children in each race. In KS2 there are **12** races with **8** children in each race. How many stickers does Mr Bolton have to buy in total, for each child to have one?
7. Miss McMillan is sorting the classroom. She needs **6** of each coloured pencil- red, black, blue, green, purple, and yellow – on each of the 6 tables. How many pencils does she need altogether?

Lesson 4

To multiply by 2 digits using the column method.

x	11	5	2	8	6	3	9	12
4								
8								
3								
9								
6								
7								
12								

Activity 1:
Please complete this multiplication grid.

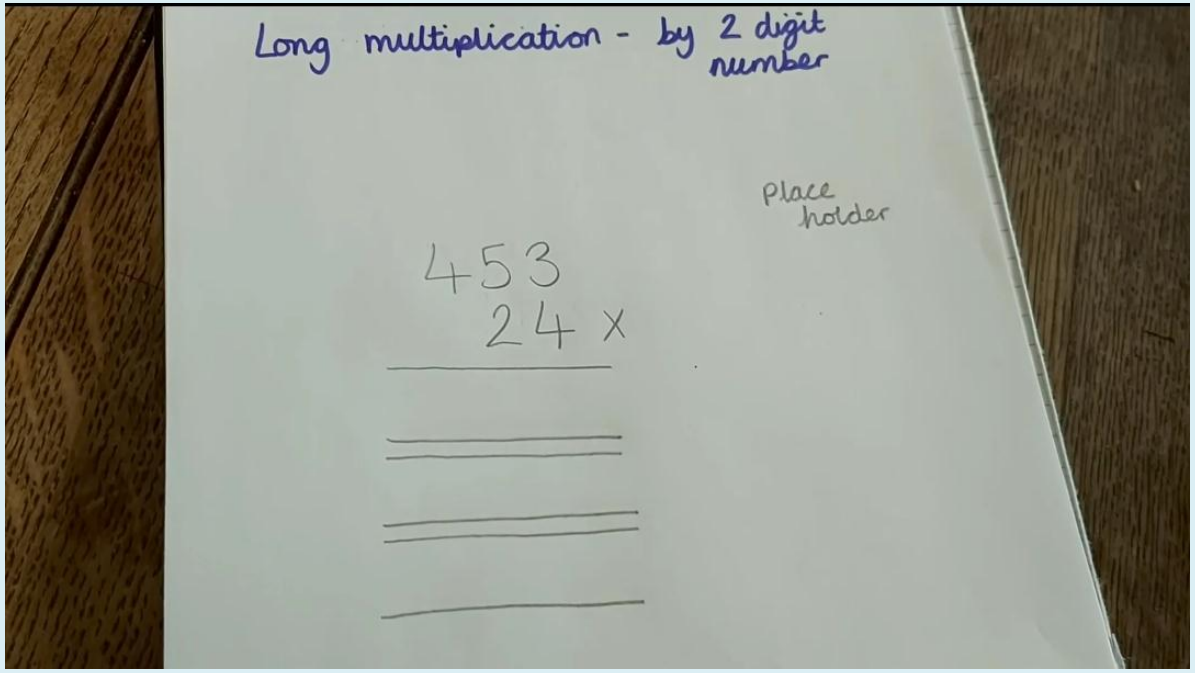
Try and time yourself to see how many you can complete and get right. Either have a 5 minute timer or stop the timer when you have finished.

Today, we are going practise using the formal written method to multiply by 2-digits.

e.g. 453 x 24

If you would like to have a go at this before you watch the video on the next slide, then have a go. Compare your method and answer to mine.

Please watch the video to show you how to multiply by 2 digits:
https://youtu.be/zUSpN2U-tz4



Now complete either worksheet 1 or 2 to practise.

Worksheet 1

1. 856 x 4 =
2. 354 x 5 =
3. 647 x 3 =
4. 846 x 7 =
5. 4719 x 6 =
6. 3762 x 4 =
7. 7364 x 3 =
8. 547 x 14 =
9. 629 x 23 =
10. 278 x 54 =

Worksheet 2

1. 547 x 14 =
2. 629 x 23 =
3. 278 x 54 =
4. 623 x 32 =
5. 536 x 24 =
6. 724 x 92 =
7. 6383 x 34 =
8. 8653 x 13 =
9. 4574 x 57 =
10. 3736 x 79 =

Extension question:

Here are examples of Dexter's maths work.

			9	8	7
×				7	6
		5	$^{5}9$	$^{4}2$	2
		6	$^{6}9$	$^{4}0$	9
	1	$^{1}2$	8	$^{1}3$	1

			3	2	4
×				7	8
		^{2}	$^{1}5$	$^{3}9$	2
	^{2}	$^{1}2$	$^{2}6$	8	0
		3	2	7	2

He has made a mistake in each question.

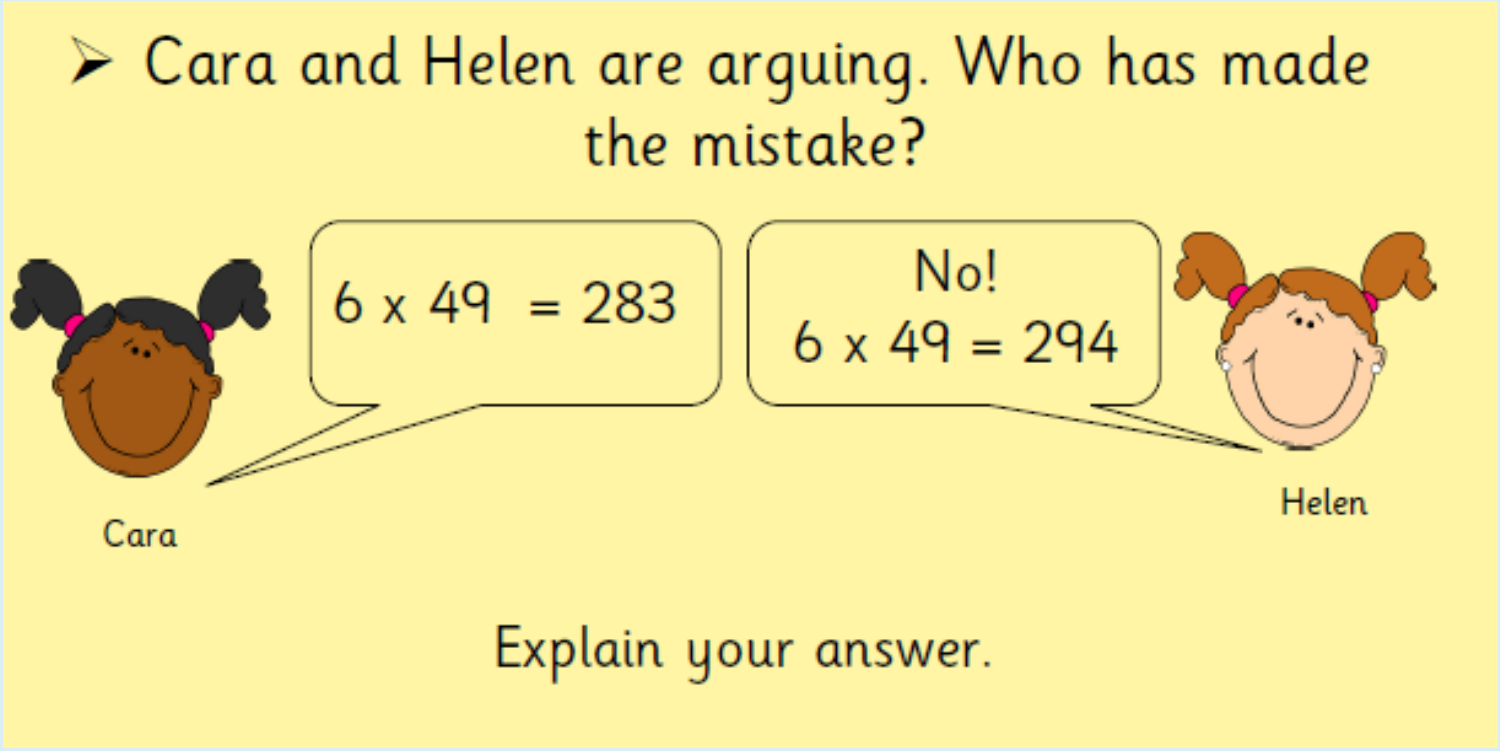
Can you spot it and explain why it's wrong?

Correct each calculation.

Lesson 5

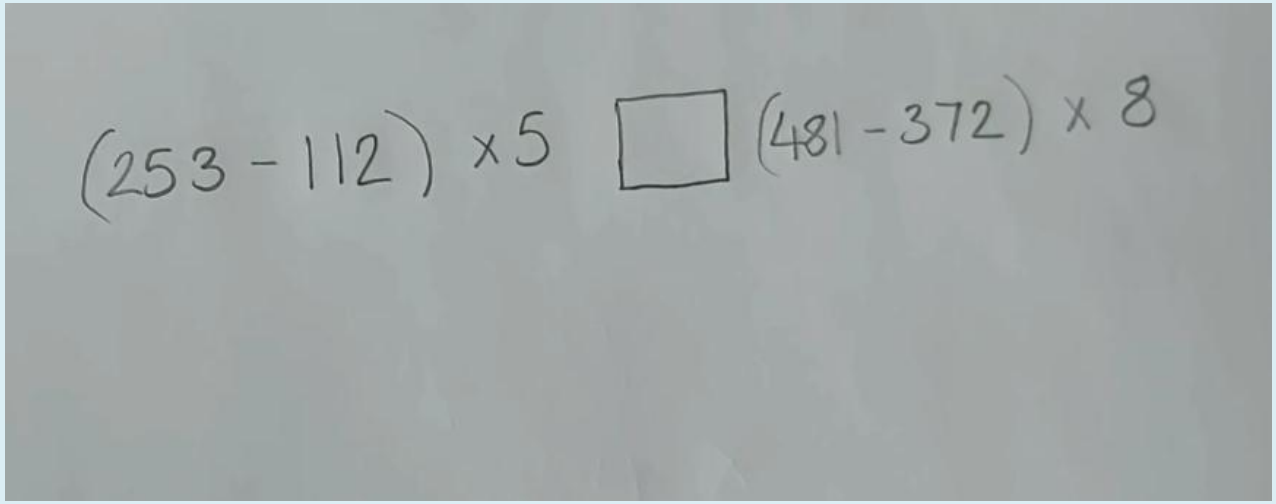
To solve problems involving addition, subtraction and multiplication.

Activity 1:



Please watch the following video to see how to answer the questions you will come across in activity 2:

https://youtu.be/ySAa20P5vbI



Now, complete either worksheet 1 **or** 2.

Activity 2- Worksheet 1

Use the greater than, less than or equal to sign in the boxes.

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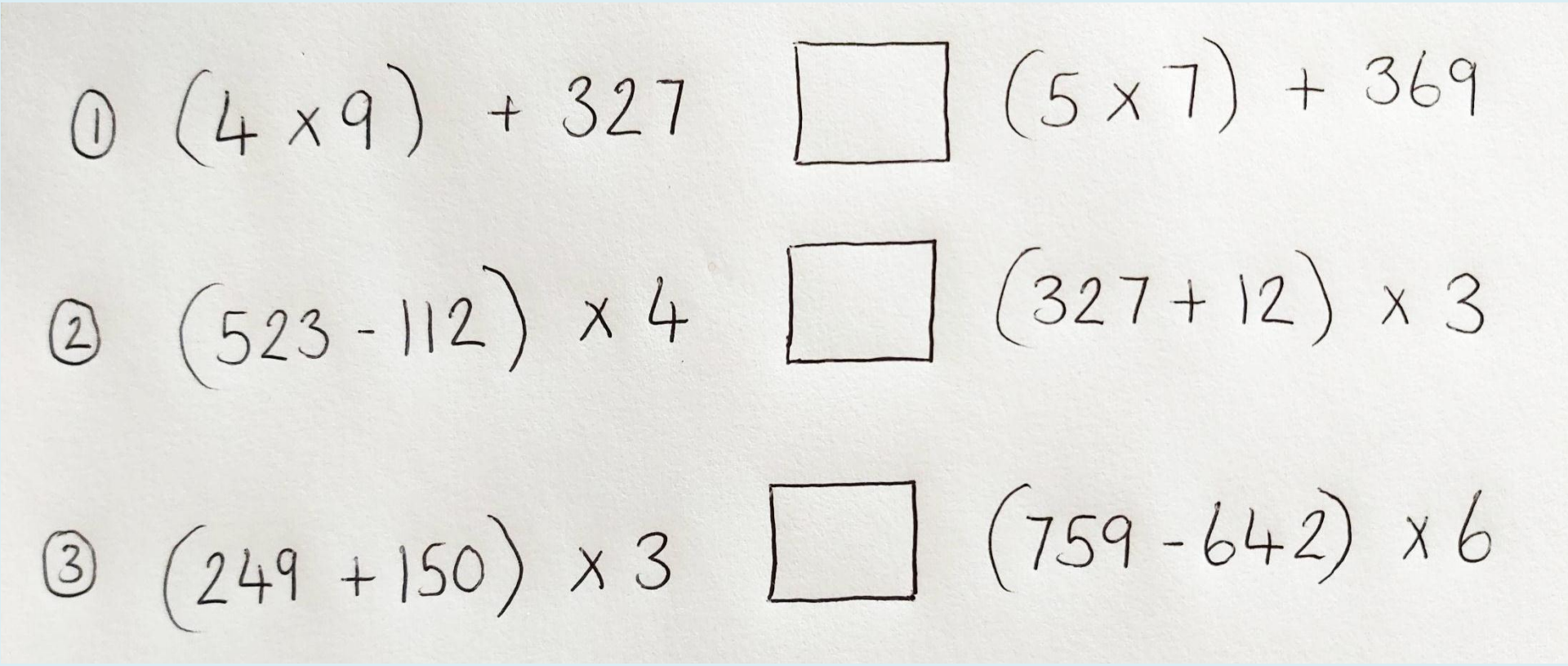
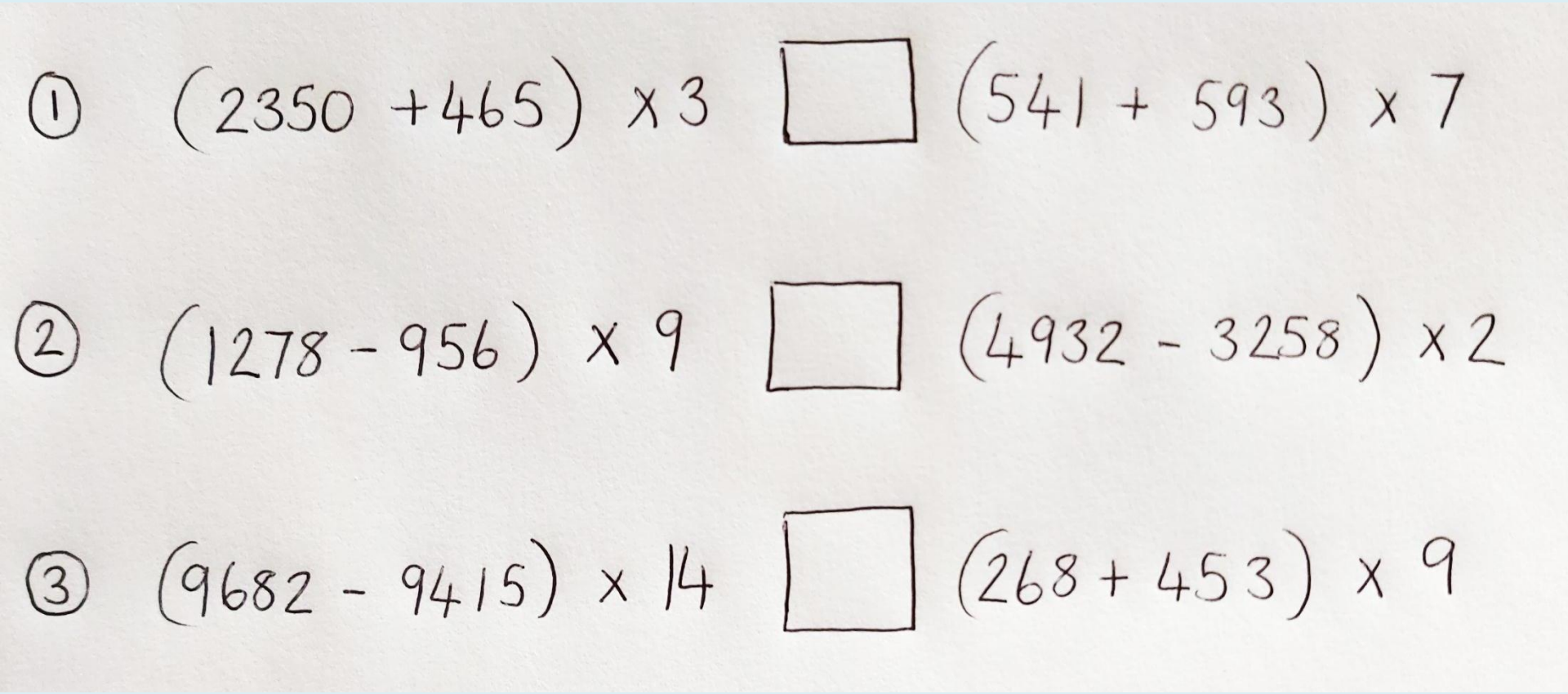


Activity 2- Worksheet 2

Use the greater than, less than or equal to sign in the boxes.

> < =



Activity 3:

Log onto Professor Assessor and complete the multiplication assessment.

ANSWERS

Lesson 1- Activity 2 answers: Multiply 3 and 4 digit numbers by 1 digit.

1.

1. 132 x 2 = 264
2. 242 x 5 = 1210
3. 842 x 2 = 1684
4. 213 x 3 = 639
5. 354 x 2 = 708
6. 541 x 5 = 2705
7. 473 x 2 = 946
8. 654 x 5 = 3270

2.

1. 856 x 4 = 3424
2. 364 x 6 = 2184
3. 947 x 3 = 2841
4. 846 x 7 = 5922
5. 471 x 6 = 2826
6. 376 x 8 = 3008
7. 7453 x 4 = 29812
8. 3928 x 7 = 27496

3.

1. 745 x 9 = 6705
2. 453 x 8 = 3624
3. 3271 x 6 = 19626
4. 9624 x 4 = 38496
5. 7635 x 7 = 53445
6. 4746 x 3 = 14238
7. 3872 x 6 = 23232
8. 7591 x 8 = 60728

Lesson 1- Activity 3 answers:

1. Dexter has the correct answer. Alex has forgotten to add the two hundreds she exchanged from the tens column.
2. Alex has not exchanged when she has got 10 or more in the tens and hundreds columns.

Lesson 2 - Activity 2 Answers- Multiply the 3 numbers. Remember to use brackets to help you.

Worksheet 1:

1. 2 x 3 x 4 = 24
2. 5 x 4 x 1 =20
3. 4 x 6 x 4 = 96
4. 3 x 7 x 5 = 105
5. 3 x 4 x 6 = 72
6. 6 x 5 x 2 = 60
7. 4 x 8 x 6 = 192

Worksheet 2:

1. 9 x 7 x 6 = 378
2. 13 x 5 x 3 = 195
3. 23 x 4 x 7 = 644
4. 31 x 3 x 6 = 558
5. 42 x 5 x 4 = 840
6. 54 x 6 x 3 = 972
7. 67 x 5 x 7 = 2345

Extension question (two possible answers):

7 x 2 x 6 = 84 , remaining numbers- 4 x 3 x 5 = 60

7 x 3 x 4 = 84, remaining numbers- 2 x 6 x 5 = 60

Lesson 3- Word problem answers

Worksheet 1:

1. 224
2. 96
3. 70
4. 378
5. 327
6. 152

Worksheet 2:

1. 144
2. 429
3. 220
4. 128 132
5. 144
6. 168
7. 216

Lesson 4 –
Worksheet 1 answers

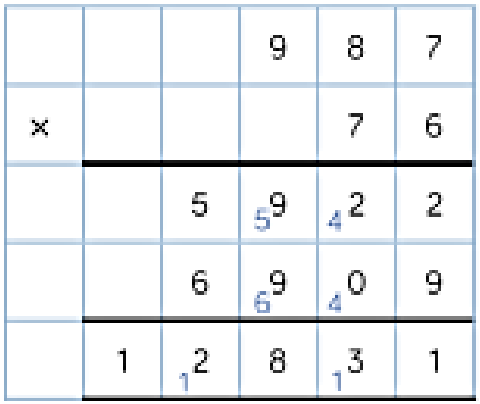
1. 856 x 4 = 3424
2. 354 x 5 = 1770
3. 647 x 3 = 1941
4. 846 x 7 = 5922
5. 4719 x 6 = 28314
6. 3762 x 4 = 15048
7. 7364 x 3 = 22092
8. 547 x 14 = 7658
9. 629 x 23 = 14467
10. 278 x 54 = 15012

Worksheet 2 answers

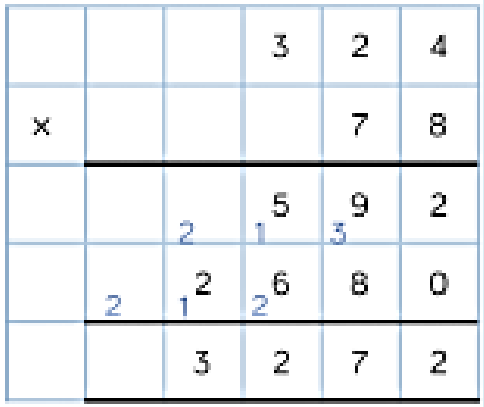
1. 547 x 14 = 7658
2. 629 x 23 = 14467
3. 278 x 54 = 15012
4. 623 x 32 = 19936
5. 536 x 24 = 12864
6. 724 x 92 = 66608
7. 6383 x 34 = 217022
8. 8653 x 13 = 112489
9. 4574 x 57 = 260718
10. 3736 x 79 = 295144

Lesson 4 - Extension question answers:

Here are examples of Dexter's maths work.



			9	8	7
×				7	6
		5	$^{5}9$	$^{4}2$	2
		6	$^{6}9$	$^{4}0$	9
	1	$_{1}2$	8	$_{1}3$	1



			3	2	4
×				7	8
		$_{2}$	$^{1}5$	$^{3}9$	2
	$_{2}$	$^{1}2$	$^{2}6$	8	0
		3	2	7	2

He has made a mistake in each question.

Can you spot it and explain why it's wrong?

Correct each calculation.

In his first calculation, Dexter has forgotten to use a zero when multiplying by 7 tens.
It should have been
987×76 = 75,012

In the second calculation, Dexter has not included his final exchanges.
324 × 8 = 2,592
324 × 70 = 22,680
The final answer should have been 25,272

Activity 2- Worksheet 1 answers

Use the greater than, less than or equal to sign in the boxes.

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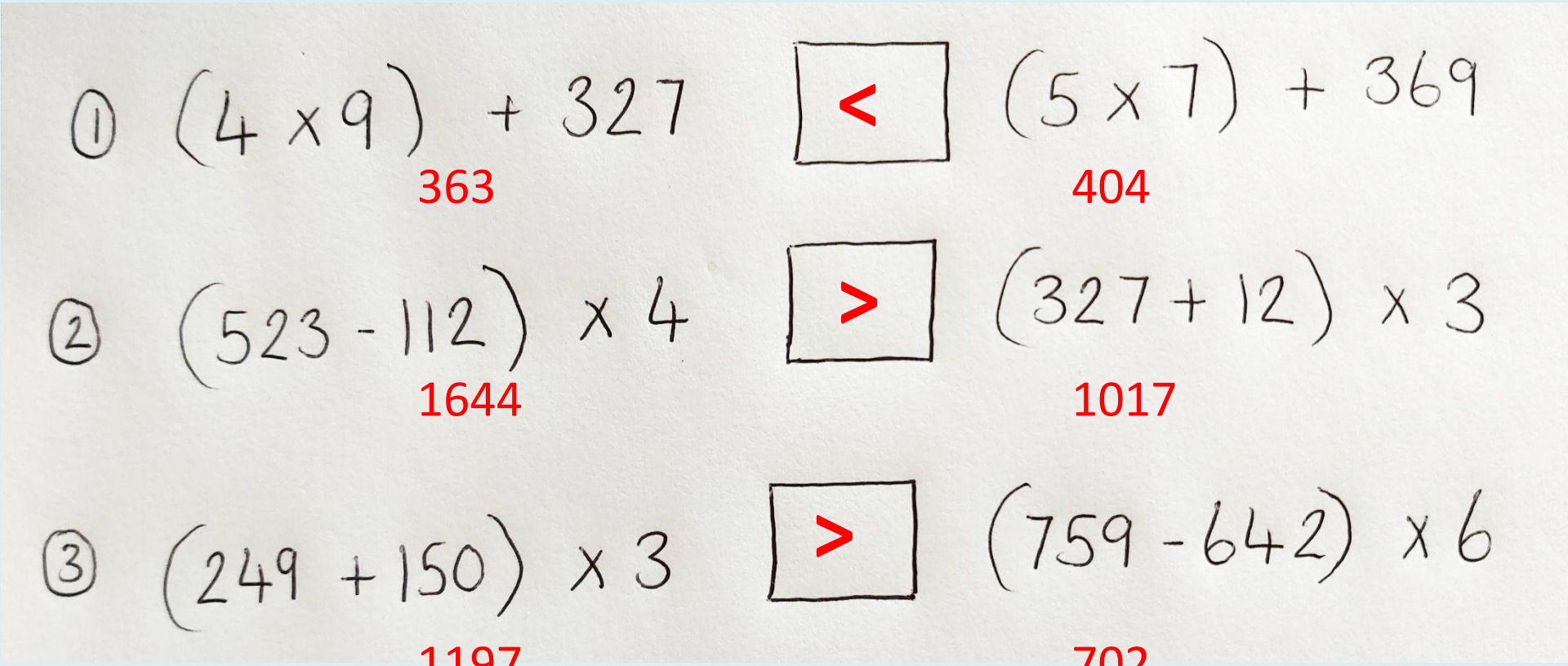

Activity 2- Worksheet 2 answers

Use the greater than, less than or equal to sign in the boxes.

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