Mystery Number Riddles

PURPOSE / SKILL: Build number sense, develop reasoning skills; practice thinking logically; practice using known mathematical language/terms.

MATERIALS: Pencil or colours; Hundreds Chart; pre-made riddles (answer key provided on last page for checking answers)
https://www.ccboe.com/schools/jenifer/images/pdfs/100Chart.pdf ;

INSTRUCTIONS: For each riddle, work through the listed clues to find the mystery number. Use the hundreds chart provided to keep track of your guesses/eliminate numbers that "don't fit" the criteria provided.

FOUR RIDDLES:

Riddle Number 1

- This number is more than 60.
- It is less than 74
- If you add the digits together, the sum is 9.
- If you subtract the smaller digit from the larger digit the difference is 5
- What is my number?

Riddle Number 2

- You are given three positive numbers.
- You can add these numbers together,
- You can multiply these numbers together and the result will be the same.
- What are the three numbers?

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Riddle Number 3

- At the time of shipping, Bryan can place 10 small boxes <u>or</u> 8 large boxes into a carton.
- A total of 96 boxes were sent in one shipment.
- The number of small boxes was less than large boxes.
- What is the total number of CARTONS that he shipped?

Riddle Number 4

- The number is greater than 6 x 4.
- The number is less than 8 x 7.
- The number is even.
- The number is a multiple of 3.
- The difference of the digits is 4.
- What is the number?

POSSIBLE NEXT STEPS:

- Create your own number riddles
- Personalize your riddle to include things specific to your family – (Example *this number is more than the total of toes in our house (including cats and dogs)*
- Extend the numbers to include integers, decimals, or fractions
- Discuss the strategies for finding the mystery number – what was most helpful.
- Discuss: is it possible for a riddle to lead to more than one number? Why or why not?

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Name _____ Date _____

My Hundreds Chart

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	88	89	90
91	92	93	94	95	96	97	98	99	100

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Answer key:

Riddle 1: 72 (7+2 =9) (7-2 =5)

Riddle 2: The number are 1, 2, 3 (1+ 2+ 3 = 6) (1 x 2 x3 = 6)

Riddle 3: 11 cartons - 4 small boxes (4 x 10 =40 boxes); 7 large boxes (7x8 = 56 boxes) 40 + 56 = 96 boxes packed… and they fit in 11 cartons. (4 + 7 is 11)

Riddle 4: -48

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