

Math 3

1-8a Skip Counting to Multiply Units of 4

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| **Name:** |  | **Date:** |  |

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| **Common Core Standards** | [CCSS.MATH.CONTENT.3.OA.A.1](http://www.corestandards.org/Math/Content/3/OA/A/1/)Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7.*[CCSS.MATH.CONTENT.3.OA.A.3](http://www.corestandards.org/Math/Content/3/OA/A/3/)Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[CCSS.MATH.CONTENT.3.OA.A.4](http://www.corestandards.org/Math/Content/3/OA/A/4/)Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = \_ ÷ 3, 6 × 6 = ?.*[CCSS.MATH.CONTENT.3.OA.B.5](http://www.corestandards.org/Math/Content/3/OA/B/5/)Apply properties of operations as strategies to multiply and divide. *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)* |

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**Skip Counting**

Identify:

**11**

**16**

**24**

**3**

**5**

**2**

**14**

**4**

**40**

**23**

**20**

**12**

**10**

**19**

**8**

**22**

**13**

What are the numbers that have 4 as a factor?

Answer: 4, 8, 12, 16, 20, 24, 40

What do you multiply to 4 to get the biggest number on the list?

Answer: 10 because 4 x 10 = 40

**Skip Counting**

Situation:

Gabby has 7 packs of 4 marbles.

4 marbles

Write a repeated addition expression to represent the tape diagram:

**\_\_\_\_\_\_\_\_\_\_\_**

Write its equivalent multiplication exppression:

**\_ x \_**

How many marbles are there?

Part A: Skip count by 4 using the number line to get the product.

1. 4 x 3 =

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

1. 4 x 2 =

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

1. 4 x 4 =

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

1. 4 x 6 =

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

Part B: Find the unknown and complete the pattern by counting by 4.

1. 4 x \_ = 36

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 20 | 24 | 28 |  | 36 |

2. 4 x \_ = 20

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 4 |  |  | 16 | 20 |

3. 4 x \_ = 28

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 12 |  | 20 |  | 28 |

4. 4 x \_ = 32

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 16 | 20 |  |  | 32 |

1. 4 x \_ = 24

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | 16 | 20 | 24 |

Part C: What Does It Say?

Match the letter to its corresponding product and find out the hidden phrase.

\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_

 4 16 28 36 12

\_\_\_ \_\_\_ \_\_\_

 24 20 8

A. 4 x 9

B. 4 x 6

D. 4 x 1

E. 4 x 7

R. 4 x 4

G. 4 x 2

M. 4 x 3

I. 4 x 5

|  |  |
| --- | --- |
|  | **ANSWER KEY** |
|  | **Situation**  | **4 + 4 + 4 + 4 + 4 + 4 + 4****4 x 7****28 marbles** |
|  | **Part A:** |  |
|  | **1.** **= 12** | 0123456789101112131415161718192021222324 |
|  | **2.** **= 8**0123456789101112131415161718192021222324 |  |
|  | **3.** **= 16** | 0123456789101112131415161718192021222324 |
|  | **4.** **= 24** | 01234567891011121314151617181920212223 |
|  | **Part B:** |  |
|  | **1. x 9**  | **20 | 24 | 28 | 32 | 36** |
|  | **2. x 5**  | **4 | 8 | 12 | 16 | 20** |
|  | **3. x 7** | **12 | 16 | 20 | 24| 28** |
|  | **4. x 8** | **16 | 20 | 24 | 28 | 32** |
|  | **5. x 6** | **8 | 12 | 16 | 20 | 24** |
|  | **Part C:** |  |

 D R E A M

 4 16 28 36 12

 B I G

 24 20 8