Varied Fluency
Step 3: Factor Pairs

National Curriculum Objectives:

Mathematics Year 4: (4C6a) Recall multiplication and division facts for multiplication tables up to 12 × 12
Mathematics Year 4: (4C6c) Recognise and use factor pairs and commutativity in mental calculations

Differentiation:

Developing Questions to support exploring the systematic recording of factor pairs (includes known facts of the 3, 4, 6 and 8 times table).
Expected Questions to support exploring the systematic recording of factor pairs using knowledge of known times table facts, with given numbers to support.
**Greater Depth** Questions to support investigating systematic ways of recording and sorting factor pairs. Includes times tables up to and beyond 12x, by using their knowledge of known multiplication facts.

More Year 4 Multiplication and Division resources.

Did you like this resource? Don't forget to review it on our website.

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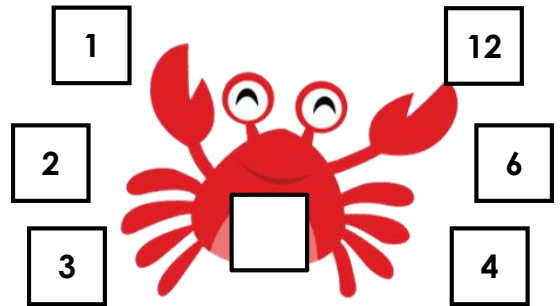
Factor Pairs

1a. Complete the factor crab.
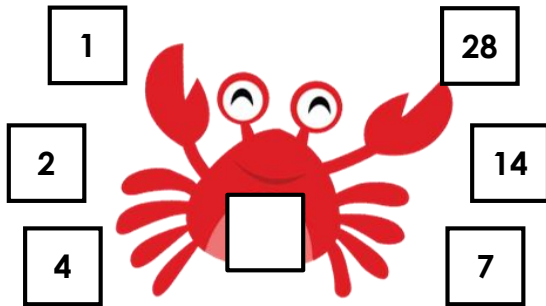
1		28
2		14
4		7

2a. Write the missing factors.

30	
1	30
A. ☐	15
3	C. ☐
B. ☐	6

3a. Draw lines to match the factor pairs.

Factor pairs of 12

6   5   12   8   3

4   7   2   9   1

4a. Circle all the factor pairs of 24.

8 x 3   7 x 4   6 x 5

3 x 9   4 x 6

5 x 4   2 x 12   1 x 24

1b. Complete the factor crab.

1		12
2		6
3		4

2b. Write the missing factors.

16	
1	16
2	B. ☐
A. ☐	4
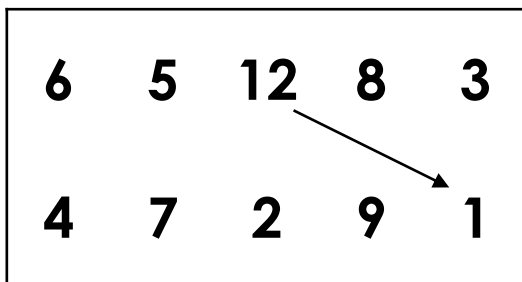
3b. Draw lines to match the factor pairs.

Factor pairs of 15

1   4   10   3   7

14   15   2   12   5

4b. Circle all the factor pairs of 18.

3 x 5   9 x 2

1 x 18   2 x 8   4 x 4

3 x 6   7 x 3

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Varied Fluency – Factor Pairs – Year 4 Developing
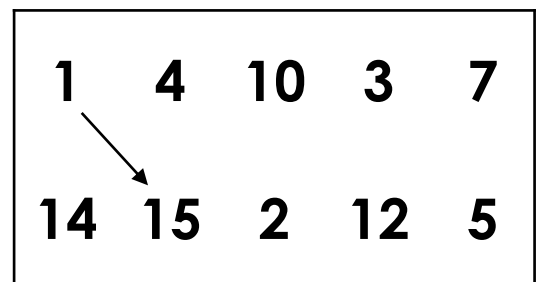
Factor Pairs

Factor Pairs

5a. Complete the factor crab.

1   56

2   28

3   14

7   8

E   VF
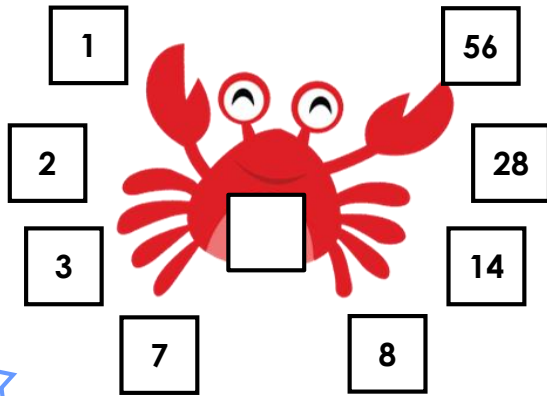
5b. Complete the factor crab.

1   32

2   16

4   8
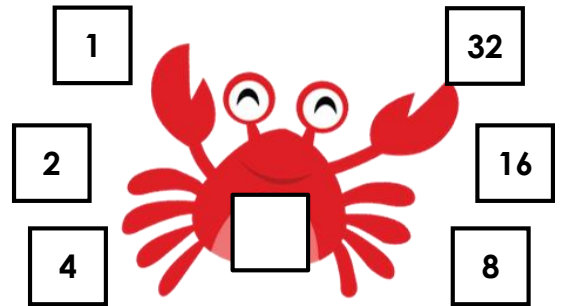
E   VF

6a. Write the missing factors.

48	
1	48
A. ☐	24
3	C. ☐
B. ☐	12
6	D. ☐

E   VF

6b. Write the missing factors.

42	
1	42
2	B. ☐
A. ☐	14
6	C. ☐

E   VF

7a. Draw lines to match the factor pairs.

Factor pairs of 24

24   5   4   8   2

7   12   1   6   3
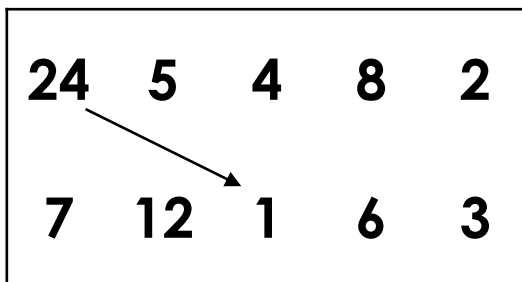
E   VF

7b. Draw lines to match the factor pairs.

Factor pairs of 28

28   7   13   5   14

2   1   4   12   9
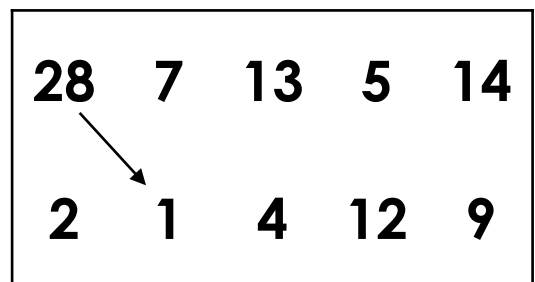
E   VF

8a. Circle all the factor pairs of 36.

2 x 18   13 x 3   6 x 6

     12 x 3   5 x 6   8 x 4

8 x 7   9 x 4   1 x 36

E   VF

8b. Circle all the factor pairs of 54.

1 x 54   13 x 4   12 x 6

     8 x 7   3 x 18   16 x 7

17 x 4   2 x 27   6 x 9

E   VF

Factor Pairs

Factor Pairs

9a. Complete the factor crab.

1		

4   22

8

VF
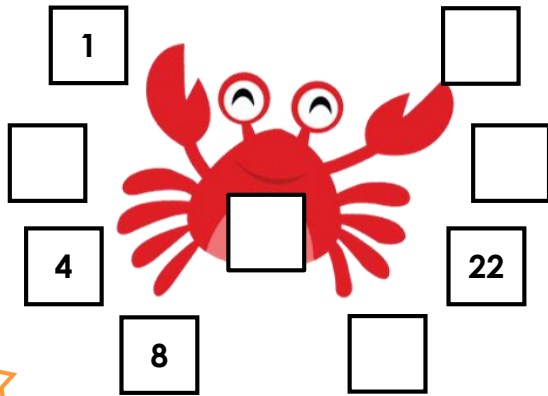
9b. Complete the factor crab.

3   25

5
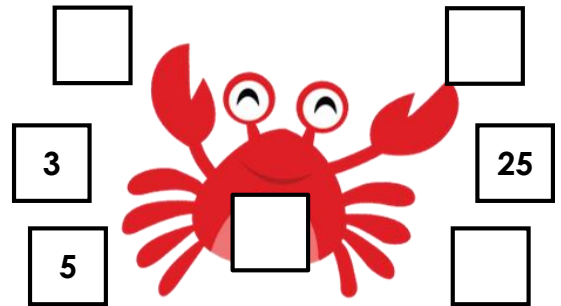
VF

10a. Explore methodically the factors of 72.

72	

VF

10b. Explore methodically the factors of 84.

84	

VF

11a. Complete the factor pairs.

Factor pairs of 66

?   2   3   6

↓   ↓   ↓   ↓

66   ?3   2?   ?1

VF

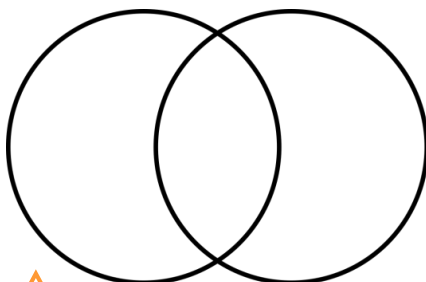**11b. Complete the factor pairs.**

Factor pairs of 96

1   2   ?   4   6   8

↓   ↓   ↓   ↓   ↓   ↓

?6   ?8   32   ?4   1?   1?

VF

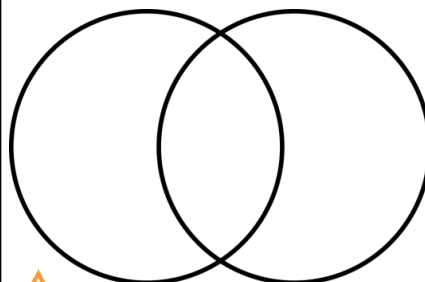**12a. Sort the factor pairs below into the Venn Diagram. Label the diagram.**

6 x 15	2 x 45
6 x 16	9 x 10
5 x 18	32 x 3
1 x 90	12 x 8
3 x 30	96 x 1

VF

12b. Sort the factor pairs below into the Venn Diagram. Label the diagram.

9 x 11	12 x 8
1 x 92	23 x 4
18 x 8	17 x 8
4 x 28	33 x 3
2 x 46	1 x 99

VF

Varied Fluency
Factor Pairs

Developing

1a. **28**

2a. **A = 2; B = 5; C = 10**

3a. **1 x 12; 2 x 6; 3 x 4**

4a. **1 x 24; 2 x 12; 4 x 6; 8 x 3**

Expected

5a. **56**

6a. **A = 2; B = 4; C = 16; D = 8**

7a. **1 x 24; 2 x 12; 3 x 8; 4 x 6**

8a. **1 x 36; 2 x 18; 3 x 12; 6 x 6; 9 x 4; 12 x 3**

Greater Depth

9a. **88 = 1 x 88, 2 x 44, 4 x 22, 8 x 11**

10a. **1 x 72; 2 x 36; 3 x 24; 4 x 18; 6 x 12; 8 x 9**

11a. **66 = 1 x 66; 2 x 33; 3 x 22; 6 x 11**

12a.

Factor Pairs of 90 **Factor Pairs of 96**

2 x 45
9 x 10
1 x 90   **6 x 16**
5 x 18   **96 x 1**
6 x 15   **32 x 3**
3 x 30   **12 x 8**
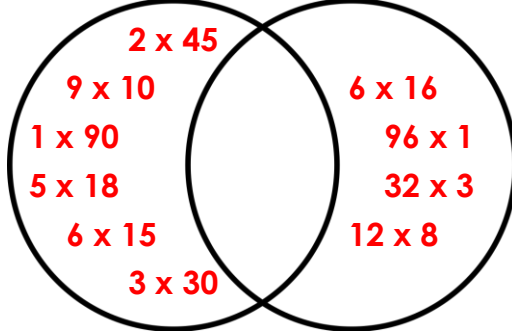
Varied Fluency
Factor Pairs

Developing

1b. **12**

2b. **A = 4; B = 8**

3b. **1 x 15; 3 x 5**

4b. **1 x 18; 2 x 9; 3 x 6**

Expected

5b. **32**

6b. **A= 3; B = 21; C = 7**

7b. **1 x 28; 2 x 14; 4 x 7**

8b. **1 x 54; 2 x 27; 3 x 18; 6 x 9**

Greater Depth

9b. **75 = 1 x 75, 3 x 25, 5 x 15**

10b. **1 x 84; 2 x 42; 3 x 28; 4 x 21; 6 x 14; 7 x 12**

11b. **96 = 1 x 96; 2 x 48; 3 x 32; 4 x 24; 6 x 16; 8 x 12**

12b.

Factor Pairs of 92 **Factor Pairs of 99**

18 x 8   **12 x 8**
2 x 46   **99 x 1**
1 x 92   **9 x 11**
23 x 4   **33 x 3**
4 x 28   **17 x 8**

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