Study Guide for Test Thursday, October 23rd

NAME Mrs. Thorndyke | DATE 10/17/14

# Unit 1 Pre-Assessment page 1 of 3

**1** Complete the chart.

| | **a** List all the factors of the number. Factors are the numbers multiplied together. | **b** List two multiples of the number. Multiples are the products to a multiplication equation. | **c** Write P if the number is prime or C if the number is composite. |
|---|---|---|---|
| 12 | 1, 2, 3, 4, 6, 12 | 12, 24, 36, 48 | C Because there are more factors than 1 and itself |
| 5 | 1, 5 | 20, 35 | P Because the only factors are 1 and itself. |

**2** ① Write a prime number in the space below and ② tell how you know it is prime.

7 is a prime number.
I know 7 is a prime number because it has only two factors which are 1 and itself.

**3** ① Write a composite number in the space below and ② tell how you know it is composite.

6 is a composite number because there are more factors than 1 and itself. 2 and 3 are also factors of 6.

**4** The equation $5 \times 7 = 35$ can mean:

- ○ 35 rulers are 5 rulers and 7 rulers put together 35 = 5 + 7 = no
- ● 35 pencils are 7 times as many as the 5 pencils at the green table. 35 = 7 × 5 = yes
- ○ 35 markers are 5 markers less than 7 markers. 35 = 7 − 5 = no
- ○ 5 erasers split into 7 groups is 35 erasers. 5 ÷ 7 = 35 = no

**5** Fill in the bubbles beside the two equations that best represent this situation: Marcus has 15 matchbox cars. That is 3 times as many as his brother Craig has. How many matchbox cars does Craig have? (In the equations below, *m* stands for Craig's matchbox cars.)

- ● $15 = 3 \times m$ 15 is 3 times as many as Craig
- ○ $15 \times 3 = m$ 15 times 3 is how many Craig has.
- ○ $15 - 3 = m$ Craig has 3 less cars than Marcus
- ● $15 \div m = 3$ 15 cars divided into the group Craig has is 3

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**6** Write and solve a multiplication equation for each of these problems.

**a** Eric is 11 years old. Eric's dad is 3 times older than Eric. How old is Eric's dad?

E = 11 D = 3 × E

D = 3 × 11 Eric's dad is 33 years old

**b** Amber bought a pair of pants and a pair of shoes. The shoes cost 3 times as much as the pants. The pants cost $15. How much did the shoes cost?

S = 3 × P P = 15

S = 3 × 15 The shoes cost $45

**c** Jamal bought a book and a CD. The book cost $14. The CD cost $7. How many times more than the CD did the book cost?

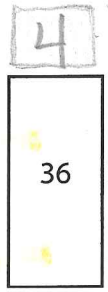
b = 14 C = 7 m

M × 7 = 14 2 × 7 = 14 The book cost 2 times more than the CD

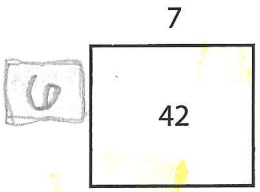
**7** Fill in the blanks to complete this ratio table.

| Number of Students | | Number of Folders |
|---|---|---|
| 1 | = | 6 |
| 2 | = | 12 (6 × 2) |
| 4 | = | 24 (6 × 4) |
| 5 | = | 30 (6 × 5) |
| 10 (60 ÷ 6) | | 60 |
| 11 | = | 66 (6 × 11) |

**8** Find and write in the missing dimension on each of the rectangles below.




9 × _ = 36




7 × _ = 42

**9** Fill in the blanks.

**a**

| | | | | | | |
|---|---|---|---|---|---|---|
| 7 × 8 = 56 | 5 × 8 = 40 | 6 × 9 = 54 | 4 × 8 = 32 | 10 × 22 = 220 | 3 × 7 = 21 | 50 × 4 = 200 |

**b** 9 × 10 = 90 4 × 20 = 80 7 × 4 = 28 6 × 10 = 60

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**10** Solve each of the story problems below. Show your thinking with numbers, sketches, or words. Then write an equation that represents your work, and record the answer, labeled with the correct units.

**a** Each of the 4 students at the red table has 8 markers. The class has 5 times as many markers as the entire red table. How many markers total does the whole class have?

$8 \times 4 = 32$ markers at the red table  $C = 5 \times 32$

$132 \times 5 = 160$

$5 \times 32 = 160$
Equation

160 markers in the class
Answer, labeled with correct units

**b** Abby saw 3 rows of crayons in her 24-count crayon box. How many crayons are in each row?

$3 \times \_\_ = 24$  $24 \div 3 = 8$

$24 \div 3 = 8$
Equation

There are 8 crayons in each row
Answer, labeled with correct units

**11** The green table has 5 students and each student brought 6 folders. The red table group has 6 students and each student brought 8 folders. How many folders do both groups have together?

**a** Solve the problem above. Show your thinking with numbers, sketches, or words. You do not need to write an equation for this problem.

$g = 5 \times 6$  $r = 6 \times 8$

$\Rightarrow (5 \times 6) + (6 \times 8)$

$\Rightarrow 30 + 48 = 78$

Both groups have 78 folders

**b** Which equation best represents this story problem? ($f$ stands for the number of folders both groups have together)

$f =$

- ● $(5 \times 6) + (6 \times 8) = f$
- ○ $5 + 6 + 6 + 8 = f$
- ○ $[(5 \times 6) + (6 \times 8)] \div 11 = f$
- ○ $(6 \times 8) - (5 \times 6) = f$

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# Unit 1 Pre-Assessment Student Reflection Sheet

| Skill | Look at these problems. | I can do this well already. | I can do this sometimes. | I need to learn to do this. | Notes |
|---|---|---|---|---|---|
| Can you name all the factors for a number? | 1a | | | | |
| Can you list two multiples for a number? | 1b | | | | |
| Can you tell whether a number is prime or composite and explain how you know? | 1c, 2, 3 | | | | |
| Do you understand what the equation $5 \times 7 = 35$ means? | 4 | | | | |
| Can you solve a multiplication or division story problem by writing an equation that best represents the problem and then solving that equation? Can you show all of your work? | 5, 6a, 6b, 6c, 10a, 10b, 11b | | | | |
| Can you multiply and divide to fill in the blanks on a ratio table? | 7 | | | | |
| If you know the area and one dimension of a rectangle, can you use that information to find the other dimension? | 8 | | | | |
| Can you multiply and divide to fill in the missing numbers in multiplication combinations? | 9a, 9b | | | | |
| Can you solve a story problem that requires more than one step and more than one operation? | 11a | | | | |

- After you have made a mark and some notes about the skills above, draw a star next to the two skills that you need to work on the most during this unit.
- Write other ideas about what you want or need to learn how to do during this unit.