Summer Math Program
Entering Sixth Grade
Week 4

Fast Facts

See how many you can do in one minute!

9 x 9 = _____	84 ÷ 7 = _____	4 x 9 = _____	36 ÷ 3 = _____
12 x 6= _____	48 ÷ 6 = _____	8 x 12= _____	77 ÷ 7 = _____
8 x 9 = _____	25 ÷ 5 = _____	6 x 7 = _____	56 ÷ 8 = _____
11 x 7 = _____	64 ÷ 8 = _____	8 x 6 = _____	63 ÷ 9 = _____
7 x 9 = _____	48 ÷ 6 =_____	9 x 9 = _____	49 ÷ 7 = _____

Prime Factorization

(For a Khan Academy lesson on prime factorization, go to:
http://www.khanacademy.org/math/arithmetic/factors-multiples/v/prime-factorization)

Find the prime factorization of these numbers using exponential notation:

1. 75 (watch video for hint☺)

2. 36

3. 28

4. 56

5. 11

6. 18

Perfecting Powers

When you multiply or divide a number by a power of 10, the exponent tells you how many places to move the decimal point. Read the following information.

Find 0.093×10^2.

The exponent for 10 tells you to move the decimal point 2 places. When you multiply, the number gets larger. Move the decimal point 2 places to the **right.**

$0.093 \times 10^2 = 9.3$

Find $5.28 \div 10^3$.

The exponent for 10 tells you to move the decimal point 3 places. When you divide, the number gets smaller. Move the decimal point 3 places to the **left.** Insert extra zeros as needed.

$5.28 \div 10^3 = 0.00528$

If you are multiplying or dividing by 10, 100, or 1,000, write the number with exponents first to determine how many places to move the decimal point.

$10 = 10^1$ $100 = 10^2$ $1{,}000 = 10^3$

Multiply or divide by using patterns.

1. 8.3×10^2 _____
2. $9.43 \div 10^3$ _____
3. 0.04×10^3 _____
4. $125 \div 10^2$ _____
5. $9.4 \div 1{,}000$ _____
6. 7.63×100 _____
7. $5.8 \div 10$ _____
8. $4.22 \times 1{,}000$ _____

Dazzling Decimals

Find each product.

1. 4.3×5 _____
2. 8×3.7 _____
3. 2×8.1 _____
4. 5.5×7 _____

Divide and check.

1. $3\overline{)2.7}$
2. $8\overline{)6.4}$
3. $6\overline{)3.66}$
4. $8\overline{)14.4}$