Center #1 – Evaluate the expression.

1) $3 \times 6 - 12 \div 6$

2) $20 \times (3^3 - 4) \div 20$

3) $5 + (4^2 + 2) \div 6$

4) $12 + 4 (16 \div 4)^2$

Center #2 – List the factor pairs for each number.

1)   28

2)   44

3)   63

Center #3 – Write the prime factorization of the number.

1)   42

2)   450

3)   1680

Center #4 – Find the lowest common multiple.

1)   4 and 14   2)   18 and 27

Center #5 – Find the greatest common factor.

1)   30 and 48   2)   32, 56, and 96

Center #6 – Add or subtract. Write the answer in simplest form.

1) $\dfrac{2}{7}+\dfrac{1}{4}$ 2) $\dfrac{5}{9}+\dfrac{3}{8}$ 3) $3\dfrac{5}{6}-2\dfrac{7}{15}$

Center #1 – Evaluate the expression.

1) $3 \times 6 - 12 \div 6$

$18 - 2 = 16$

2) $20 \times (3^3 - 4) \div 20$

$20 \times (27 - 4) \div 20$
$20 \times 23 \div 20$
$460 \div 20 = 23$

3) $5 + (4^2 + 2) \div 6$

$5 + (16 + 2) \div 6$
$5 + 18 \div 6$
$5 + 3 = 8$

4) $12 + 4 (16 \div 4)^2$

$12 + 4(4)^2$
$12 + 4(16)$
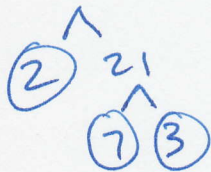$12 + 64 = 76$

Center #2 – List the factor pairs for each number.

1) 28 – 1, 2, 4, 7, 14, 28
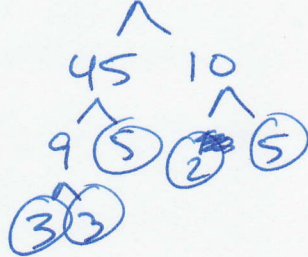
2) 44 – 1, 2, 4, 11, 22, 44

3) 63 – 1, 3, 7, 9, 21, 63

Center #3 – Write the prime factorization of the number.

1) 42

② 21
⑦ ③
$2 \cdot 3 \cdot 7$

2) 450

45   10
9 ⑤ ② ⑤
③③
$2 \cdot 3^2 \cdot 5^2$

3) 1680

168   10
84 ② ⑤ ②
42 ②
21 ②
⑦ ③
$2^4 \cdot 3 \cdot 5 \cdot 7$

Center #4 – Find the lowest common multiple.

1)   4 and 14

$4 \rightarrow 4, 8, 12, 16, 20, 24, 28$
$14 \rightarrow 14, 28$

2)   18 and 27

18   27
6   3   9   3
2 3   3 3

$2 \cdot 3 \cdot 3$ $3 \cdot 3 \cdot 3$

$18 \times 3 = 54$
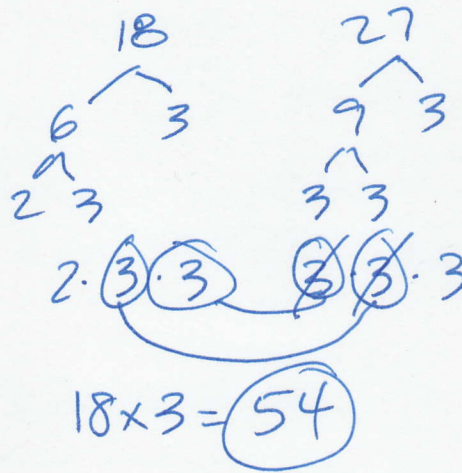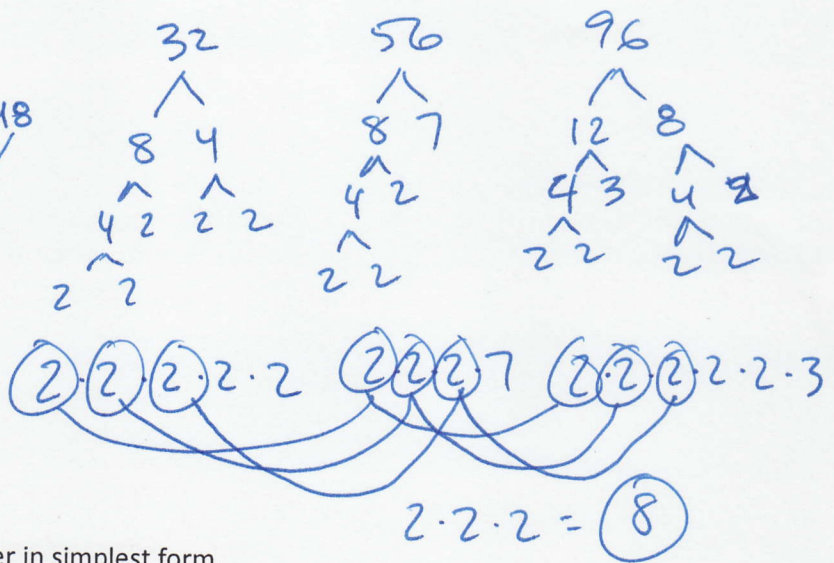
Center #5 – Find the greatest common factor.

1)   30 and 48

$30 - 1, 2, 3, 5, 6, 10, 15, 30$
$48 - 1, 2, 3, 4, 6, 8, 12, 16, 24, 48$

2)   32, 56, and 96

32   56   96
8   4   8   7   12   8
4 2 2 2   4 2   4 3   4 2
2 2   2 2   2 2   2 2

$2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$ $2 \cdot 2 \cdot 2 \cdot 7$ $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$

$2 \cdot 2 \cdot 2 = 8$

Center #6 – Add or subtract. Write the answer in simplest form.

1) $\dfrac{2}{7} + \dfrac{1}{4}$

$\dfrac{8}{28} + \dfrac{7}{28}$

$\dfrac{15}{28}$

2) $\dfrac{5}{9} + \dfrac{3}{8}$

$\dfrac{40}{72} + \dfrac{27}{72}$

$\dfrac{67}{72}$

3) $3\dfrac{5}{6} - 2\dfrac{7}{15}$

$3\dfrac{5}{6} = 3\dfrac{25}{30}$

$-2\dfrac{7}{15} = 2\dfrac{14}{30}$

$1\dfrac{11}{30}$