

MULTIPLICATIVE THINKING – SET 5

(A) *Knows 1,2,3,4,5 and 10s times tables*
(And learning all multiplication and division facts)

$$\underline{2} \times 7 = 14$$

$$3 \times \underline{4} = 12$$

$$\underline{5} \times 8 = 40$$

$$6 \times \underline{10} = 60$$

$$9 \times \underline{3} = 27$$

$$12 \times \underline{1} = 12$$

(b) *Uses place value to solve multiplication problems*

$$5 \times 4 = 20$$

$$5 \times 40 = 200$$

$$6 \times 3 = 18$$

$$60 \times 3 = 180$$

$$18 \times 10 = 180$$

$$10 \times 63 = 630$$

(C) *Uses place value knowledge to solve multiplication problems – single step*

$$3 \times 51 =$$

Find a known basic fact $3 \times 5 = 15$

Multiply by 10s $3 \times 50 = 150$

Add 1 lot of 3 $150 + 3 = 153$

$$3 \times 51 = 153$$

$$19 \times 4 =$$

Find a known basic fact $2 \times 4 = 8$

Multiply by 10s $20 \times 4 = 80$

Subtract one lot of 10 $80 - 4 = 76$

$$19 \times 4 = 76$$

(D) *Uses multi-place value knowledge to solve unknown problems – single step*

$$50 \times ? = 150$$

Find a known basic fact $5 \times 3 = 15$

Multiply by 10s $50 \times 3 = 150$

$$? \times 6 = 240$$

Find how many 10s $10 \times \underline{24} = 240$

Find the multiplication fact $? \times 6 = \underline{24}$

$$\underline{4} \times 6 = 24$$

$$\underline{40} \times 6 = 240$$

(E) *Uses multi-place value knowledge to solve division problems*

$$60 \div 3 =$$

Inverse into a mult fact $3 \times ? = 60$

Find a known basic fact $3 \times 2 = 6$

Multiply by 10s $3 \times 20 = 60$

$$60 \div 3 = 20$$

$$150 \div 50 =$$

Divide 10s $15 \div 5 =$

Inverse into a mult fact $? \times 5 = 15$

Find a known basic fact $3 \times 5 = 15$

Multiply by 10s $3 \times 50 = 150$

$$150 \div 50 = 3$$

(F) *Uses multiplication knowledge to simplify fractions.*

$$40 \text{ out of } 120$$

Write as a fraction $40 / 120$

Find common multiple $4 \times 10 = 40$

$$12 \times 10 = 120$$

Simplify $4 / 12$

Find common multiple $1 \times 4 = 4$

$$3 \times 4 = 12$$

Simplify $1/3$

Note: These examples all use multiplication facts to solve, just like the illustrations. However some problems could be solved using division facts which is another way of showing multiplicative thinking.