Greatest Common Factor and Factoring
Topic 2 Homework

Name _____

Period _____

Find the Greatest Common Factor

1. 32 and 72

2. 84 and 56

3. 48, 64, and 128

Factor the GCF from the following Expressions

1. $12x+20$

2. $30a-60b$

3. $16m-8n+24p$

Circle the Correct Answer. For each incorrect answer, explain why it is incorrect.

Which pair of expressions below is equivalent?

A $x + y + x + y$ and $2(x + y)$

B $5(2x - 3y)$ and $10x - 3y$

C $4x - 5y$ and $5y - 4x$

D $9x + 2y$ and $11xy$

The expression below was simplified using two properties of operations.

$5(11z + 29 + 6z)$

Step 1 $5(11z + 6z + 29)$

Step 2 $5(17z + 29)$

Step 3 $85z + 145$

Which properties were applied in Steps 1 and 3, respectively?

A commutative property, then distributive property

B commutative property, then identity property

C associative property, then distributive property

D associative property, then commutative property

Which expression is equivalent to $3(6m) + m$?

A $19m$

B $21m$

C $7m + 3$

D $18m + 6m^2$

Which expression is equivalent to $16a + 24b$?

A $4(4a + 20b)$

B $8(2a + 3b)$

C $4a(4 + 6b)$

D $8ab(2 + 3)$

Which expression is equivalent to $5(d + 1)$?

A $5d + 5$

B $5d + 1$

C $d + 5$

D $d + 6$

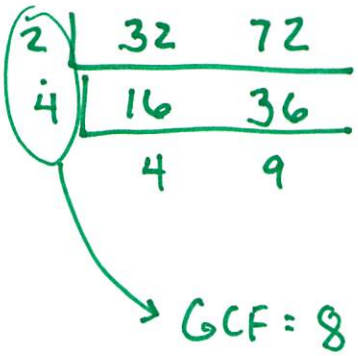
Greatest Common Factor and Factoring
Topic 2 Homework

Name Key

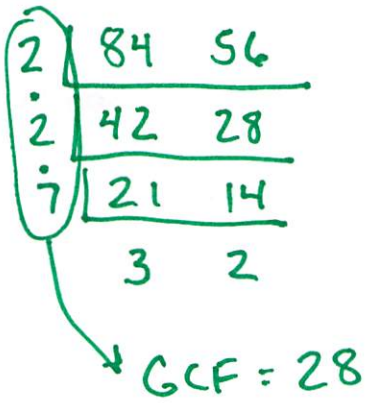
Period _____

Find the Greatest Common Factor

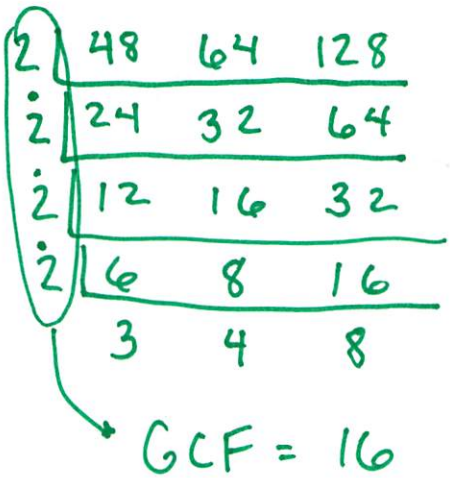
1. 32 and 72



2. 84 and 56

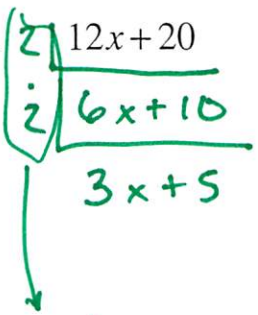


3. 48, 64, and 128

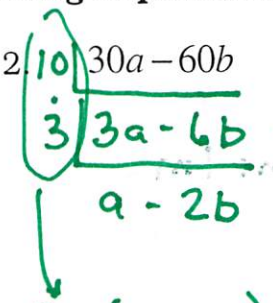


Factor the GCF from the following Expressions

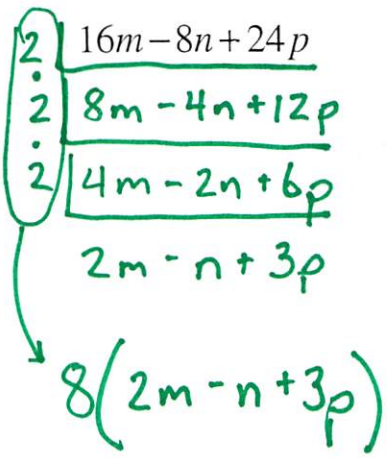
1. $12x+20$



2. $30a-60b$



3. $16m-8n+24p$



Circle the Correct Answer. For each incorrect answer, explain why it is incorrect.

Which pair of expressions below is equivalent?

(A) $x + y + x + y$ and $2(x + y)$

B $5(2x - 3y)$ and $10x - 3y$ Didn't Distribute the $5 \cdot 3y$

C $4x - 5y$ and $5y - 4x$ Can't use Commutative Prop with $-$

D $9x + 2y$ and $11xy$ Can't combine x's and y's

The expression below was simplified using two properties of operations.

$5(11z + 29 + 6z)$

Step 1 $5(11z + 6z + 29)$

Step 2 $5(17z + 29)$

Step 3 $85z + 145$

Which properties were applied in Steps 1 and 3, respectively?

A commutative property, then distributive property

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Which expression is equivalent to $3(6m) + m$?

18m + 1m

A $19m$

B $21m$

C $7m + 3$

D $18m + 6m^2$

Which expression is equivalent to $16a + 24b$?

A $4(4a + 20b)$ = 16a + 80b

B $8(2a + 3b)$ = 16a + 24b

C $4a(4 + 6b)$ = 16a + 24ab

D $8ab(2 + 3)$ = 16ab + 24ab

Which expression is equivalent to $5(d + 1)$?

5d + 5

A $5d + 5$

B $5d + 1$

C $d + 5$

D $d + 6$