FACTOR

Name: _____

Use a separate sheet
for your upside down
wedding cakes...

Factor each expression using the GCF.

Expression	GCF	Factored Expression
6x + 12		
24x – 18		
8 – 12b		
12x + 10		
16x – 8x		
24 – 16x		
12m + 28m – 32		
4j + 18j		
12x + 9x – 15x		
$10k^2 + 20k$		
$8b^3 + 4b^2 + 6b$		
4ab + 6a – 14a		
$3x^2 + 12xy - 15x^3$		

You Try:

Expression	GCF	Simplified Expression
5j + 15		
6m – 3m		
-10x – 12x + 18		

BC	18m – 12m + 24m		
	-11v + 22		
	7x² + 28x		
A B	-4r³ + 2r² – r		
BC	5mn + 20m – 10m		
AB	8p²q² + 20p		
BC	18rt – 9r²t + 36r³t³		

Factor the following expressions.

1.) $24 + 28x$

2.) $9 + 21w$

3.) $2 - 10y - 12$

4.) $15 + 30x + 40y$

A 5.) $7n + 28 - 21m$

6.) $2d + 2d - 60$

7.) $50x - 80x$

A 8.) $16x + 4x^2 - 12x^3$

9.) $32x^4 - 88x^2 + 48x^2$

10.) $54x^2 + 18 + 72$

11.) $24ab - 18a^2b + 12a^2$

12.) $9yz + 12y - 3y$

A 13.) $18xy^3 + 42xy - 54x$

14.) $12a^2 - 40ab + 16a$

15.) $- 8p - 5p + 7p$

16) $x^2 + 7x - 9x$

17.) $25m^2n^3 - 20m^2n$

BC 18.) $16k^2 - 4k + 12k$

19.) $9x^2 + 9x$

20.) $6y^3 - 3y$

A 21.) $8ab^2 - 4b$

22.) $10jk + 10j - 10$

23.) $400a + 175b - 100c$
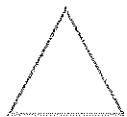
24.) $7a^2b^3 + 14a^3b - 21ab$

A B C 25.) A square has a perimeter of 16m + 20. Write an expression to represent one side length of the square.

26.) An equilateral triangle has a perimeter of 12p – 27q. Write an expression to represent one side length of the triangle.

B C

26.) A regular hexagon has a perimeter of 18y +6x -3z. Write an expression to represent one side length of the hexagon.

28.) A regular pentagon has a perimeter of 20p + 25p– 10p. Write an expression to represent one side length of the pentagon.

C 29.) A regular octagon has a perimeter of 80x – 120y – 8. Write an expression to represent one side length of the octagon.

** Regular polygons have all equal side-lengths and angle measures.