HEISENBERG TUTORIAL CENTER

AY 2021-2022

MATHEMATICS 8

Name: _____ Score: _____

Lesson: Factoring Polynomials by Grouping

Factor each completely.

1) $4v^3 + 2v^2 - 10v - 5$

A) $(2v^2 + 5)(2v - 5)$
B) $(2v^2 - 5)(2v + 1)$
C) $(2v^2 + 5)(2v + 1)$
D) $(2v^2 - 5)(2v - 1)$

2) $21x^3 + 18x^2 - 14x - 12$

A) $3(3x^2 + 2)(x^2 + 2)$
B) $3(3x^2 - 2)(x^2 - 2)$
C) $(3x^2 - 2)(7x + 6)$
D) $(3x^2 + 2)(7x - 6)$

3) $15k^3 + 12k^2 - 10k - 8$

A) $(5k - 2)(3k^2 - 4)$
B) $(3k^2 + 2)(5k + 4)$
C) $(3k^2 + 4)(5k + 2)$
D) $(3k^2 - 2)(5k + 4)$

4) $3x^3 - 5x^2 + 9x - 15$

A) $(x^2 - 3)(3x - 5)$
B) $(x^2 + 3)(3x - 5)$
C) $(x^2 + 3)(3x + 5)$
D) $(x^2 + 3)(x^2 - 5)$

5) $21v^3 - 14v^2 - 9v + 6$

A) $3(7v^2 + 3)(v - 1)$
B) $3(7v^2 - 2)(v - 1)$
C) $(7v^2 + 3)(3v + 2)$
D) $(7v^2 - 3)(3v - 2)$

6) $12x^3 - 18x^2 - 2x + 3$

A) $(6x^2 - 1)(2x - 3)$
B) $(6x^2 - 1)(2x - 1)$
C) $(6x^2 + 1)(2x + 1)$
D) $(6x^2 + 1)(2x - 3)$

7) $10b^3 + 25b^2 + 12b + 30$

A) $10(b + 3)(b^2 + 1)$
B) $(5b^2 + 6)(2b + 5)$
C) $10(b + 3)(b - 1)(b + 1)$
D) $10(b^2 + 1)(b - 3)$

8) $35m^3 + 30m^2 - 7m - 6$

A) $(5m^2 + 1)(5m^2 - 6)$
B) $(5m^2 + 1)(7m + 6)$
C) $(5m^2 - 1)(7m + 6)$
D) $(5m^2 + 6)(7m - 1)$

9) $28x^3 + 16x^2 - 49x - 28$

A) $4(4x^2 + 7)(x^2 + 1)$
B) $28(x^2 + 1)(x - 1)$
C) $4(4x^2 + 7)(x - 1)(x + 1)$
D) $(4x^2 - 7)(7x + 4)$

10) $4b^3 - 24b^2 + b - 6$

A) $2(2b^2 - 3)(b + 1)$
B) $(2b - 1)(2b + 1)(b - 6)$
C) $(4b^2 + 1)(b - 6)$
D) $(2b - 1)(2b + 1)(b + 6)$

LIVEWORKSHEETS