สอบซ่อม Test 1 factor polynomial ครั้งที่ 1

Name.....Class M.2/..... Number .....

คำชี้แจง ซ่อมผ่านต้องได้คะแนนอย่างน้อย 8 คะแนน

1. If $6x^2 + 3x - 18 = 3(2x + a)(x + b)$, then find the value of $a + b$.

Sol $6x^2 + 3x - 18 = 3(\_\_\_\_x^2 + \_\_\_\_x - \_\_\_\_)$

$= 3(\_\_\_\_\_)(\_\_\_\_\_)$

$a = \_\_\_\_$ $b = \_\_\_\_$

Ans $a + b = \_\_\_\_$

2. Find the factors of $(m - 4)^2 - 16$.

Sol $(m - 4)^2 - 16 = (m - 4)^2 - (\_\_\_\_)^2$

$= [(m - 4) - (\_\_\_\_)][(m - 4) + (\_\_\_\_)]$

$= (\_\_\_\_)m$

3. Factor the following.

a. $4x^3 - x = 4x(\_\_\_\_\_)$

b. $5x^2 - x - 6 = (5x - \_\_\_\_)(\_\_\_\_\_)$

c. $x^2(m + n) - 4(m + n) = (\_\_\_\_\_)(x^2 - 4)$

$= (\_\_\_\_\_)(x^2 - 2^2)$

$= (\_\_\_\_\_)(\_\_\_\_\_)(\_\_\_\_\_)$

d. $5x^2 - y^2 = \left(\left(\sqrt{5}x\right)^2 - y^2\right.$ = ($\sqrt{5}$ x _____)($\sqrt{5}$ x _____)

4. Find the factors of $-2 + 42m^2 + 5m$.

Sol $-2 + 42m^2 + 5m$ = _____m^2 _____m _____

= (7m_____)(_____)

5. Which of the polynomials has (4n + 2) a factor?

a. $4n^2 - 34n - 18$ = (4n_____)(n_____)

b. $8n^2 - 34n - 14$ = _____ $(4n^2-17n-7)$

c. $4n^2 + 34n + 18$ = _____ $(2x^2 + 17x + 9)$

d. $8n^2 - 34n + 14$ = _____ $(4x^2 -17x +7)$

Ans _____

6. Factor the following.

a. b(x - y) + n(y – x) = b(x - y) _____ (x - y) = (_____)(x-y)

b. $7^2 - x^2 = (7 - x)$(_____)

c. a(m + n) – b(–n – m) = a(m + n) _____ (m + n) (_____)(m + n)

d. $-18 + x^2 - 7x = x^2$ _____ = (_____) (_____)

7. Find the factors of $-12x^2 - 32x + 35$ and to factor out a negative if the leading coefficient is negative.

Sol $-12x^2 - 32x + 35$ = -(_____x^2 _____x _____)

= -(6x_____)(_____)

8. 9n – 5 is a factor of which of the following polynomials?

a. $18n^2 - 46n - 20$ = 2(_____)(_____)

b. $18n^2 + 46n - 20$ = 2(_____n^2 _____n _____)

c. $18n^2 + 46n + 20 = 2(n\_\_\_\_\_)(\_\_\_\_\_)$

d. $18n^2 - 46n + 20 = 2(n\_\_\_\_\_)(\_\_\_\_\_)$

Ans _____

9. Find the factors of $105x - 50x^2 + 5x^3$.

Sol $105x - 50x^2 + 5x^3 = 5x^3 - 50x^2 + 105x$

$= \_\_\_\_\_ (x^2 - 10x + 21)$

$= 5x(\_\_\_\_\_)(\_\_\_\_\_)$

10. Find the factors of $49(x + 3)^2 - 9x^2$.

Sol $49(x + 3)^2 - 9x^2 = [7((x + 3)]^2 - (\_\_\_\_\_)^2$

$= (7x + \_\_\_\_\_)^2 - (\_\_\_\_\_)^2$

$= (10x\_\_\_\_\_)(4x\_\_\_\_\_)$