

Assignment - Factorization

Date _____

Factor the common factor out of each expression.

1) $8np^4m + 80n^2p$

2) $-6np^3 - 2n^2p^5m^6$

3) $12a^3b^2 - 30a^5b^2c^2$

4) $16y^4z^5 + 12y^2z^3x$

5) $99v^4u + 110v^5 + 66v^4$

6) $-60b^9a^5 + 50b^5a - 20b^6$



$$7) 33x^4y - 11x^3y + 11xy$$

$$8) -11xy^4 + 132x^2y^2 + 66x^4y^2$$

Factor each completely.

$$9) 4n^3 - 2n^2 - 14n + 7$$

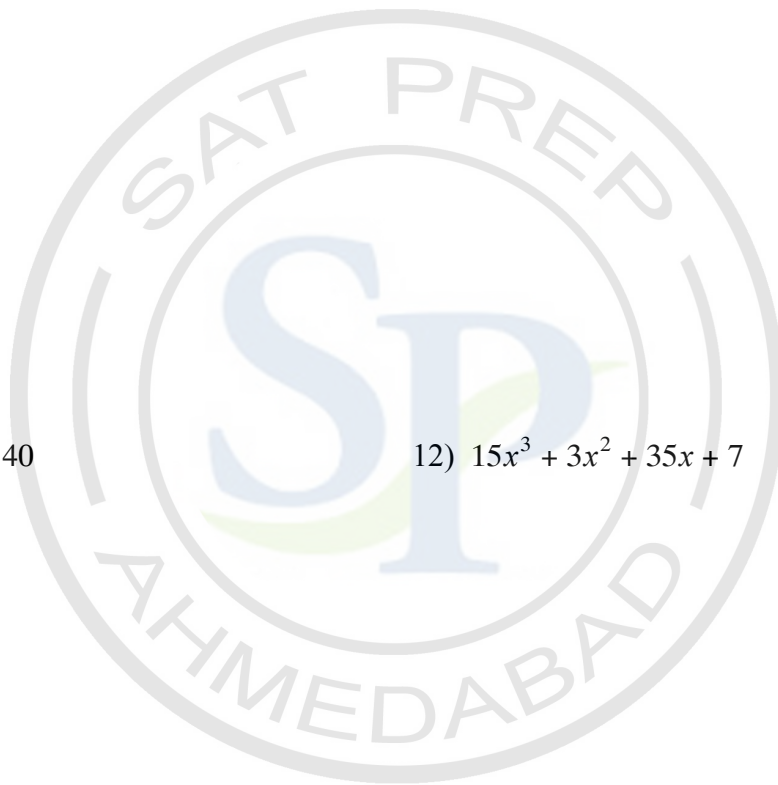
$$10) 48m^3 - 6m^2 - 8m + 1$$

$$11) 5v^3 - 8v^2 - 25v + 40$$

$$12) 15x^3 + 3x^2 + 35x + 7$$

$$13) 392v^3u^2 + 1008v^4u + 648v^5$$

$$14) 2352x^2 - 1680xy + 300y^2$$



$$15) 343b^2 - 98ba + 7a^2$$

$$16) 1053b^2 - 325a^2$$

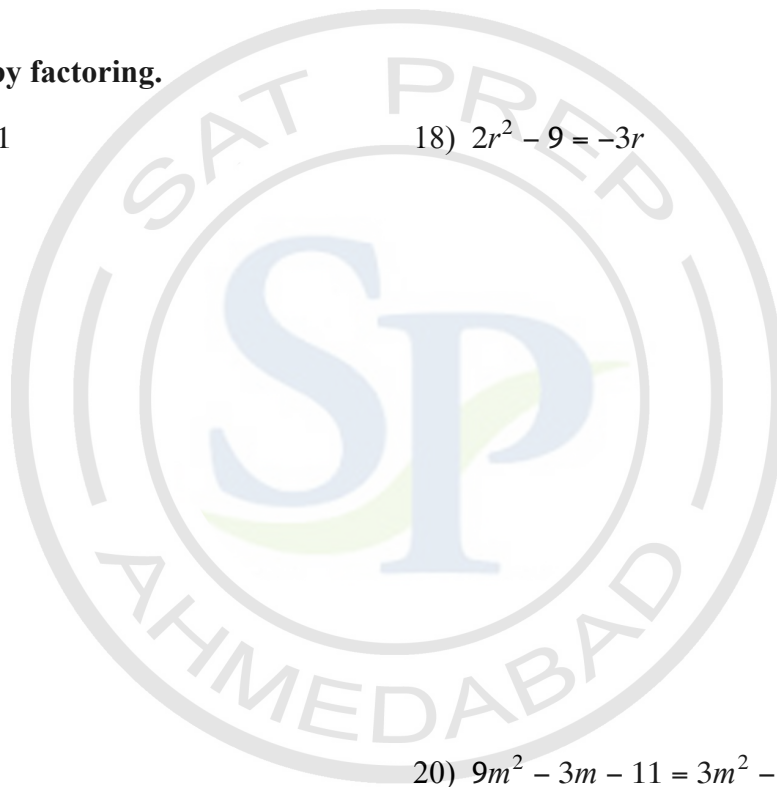
Solve each equation by factoring.

$$17) 4a^2 - 12a + 10 = 1$$

$$18) 2r^2 - 9 = -3r$$

$$19) 4m^2 - 6 = 2m$$

$$20) 9m^2 - 3m - 11 = 3m^2 - 2$$



Answers to Assignment - Factorization (ID: 1)

- 1) $8np(mp^3 + 10n)$ 2) $-2np^3(3 + m^6np^2)$ 3) $6a^3b^2(2 - 5a^2c^2)$ 4) $4y^2z^3(4y^2z^2 + 3x)$
5) $11v^4(9u + 10v + 6)$ 6) $10b^5(-6a^5b^4 + 5a - 2b)$ 7) $11xy(3x^3 - x^2 + 1)$
8) $11xy^2(-y^2 + 12x + 6x^3)$ 9) $(2n^2 - 7)(2n - 1)$ 10) $(6m^2 - 1)(8m - 1)$
11) $(v^2 - 5)(5v - 8)$ 12) $(3x^2 + 7)(5x + 1)$ 13) $8v^3(7u + 9v)^2$ 14) $12(14x - 5y)^2$
15) $7(7b - a)^2$ 16) $13(9b + 5a)(9b - 5a)$ 17) $\left\{\frac{3}{2}\right\}$
18) $\left\{\frac{3}{2}, -3\right\}$ 19) $\left\{\frac{3}{2}, -1\right\}$ 20) $\left\{\frac{3}{2}, -1\right\}$

