

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Multiplying Monomials

Simplify each expression.

1)  $(3yx^2)^3 \cdot y$

2)  $(x^2y^3)^2$

3)  $(xy^2)^2 \cdot (5x^2y^3)^2$

4)  $(3z^2)^2 \cdot (z^4)^3$

5)  $y^2x^2 \cdot y^2x^4$

6)  $(4y)^3$

7)  $(2z^4 \cdot z^5)^2$

8)  $(zy^2)^2 \cdot (2z)^2$

9)  $4(5x^2)^3$

10)  $7(x)^3$

11)  $4x^3(9y^4)^2$

12)  $yx^3 \cdot 5y^3$

13)  $(x \cdot 8x)^3$

14)  $4(z \cdot 4z^2)^2$

15)  $y^2 \cdot 5y^3$

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## Multiplying Monomials

Simplify each expression.

$$1) (3yx^2)^3 \cdot y$$
$$27y^4x^6$$

$$2) (x^2y^3)^2$$
$$x^4y^6$$

$$3) (xy^2)^2 \cdot (5x^2y^3)^2$$
$$25x^6y^{10}$$

$$4) (3z^2)^2 \cdot (z^4)^3$$
$$9z^{16}$$

$$5) y^2x^2 \cdot y^2x^4$$
$$y^4x^6$$

$$6) (4y)^3$$
$$64y^3$$

$$7) (2z^4 \cdot z^5)^2$$
$$4z^{18}$$

$$8) (zy^2)^2 \cdot (2z)^2$$
$$4z^6y^4$$

$$9) 4(5x^2)^3$$
$$500x^6$$

$$10) 7(x)^3$$
$$7x^3$$

$$11) 4x^3(9y^4)^2$$
$$324x^3y^8$$

$$12) yx^3 \cdot 5y^3$$
$$5y^4x^3$$

$$13) (x \cdot 8x)^3$$
$$512x^6$$

$$14) 4(z \cdot 4z^2)^2$$
$$64z^6$$

$$15) y^2 \cdot 5y^3$$
$$5y^5$$