

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

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

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

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

## Multiplying Monomials

Simplify each expression.

1)  $yz^4 \cdot 8y^3z^4$

2)  $z^4x^5 \cdot 3z^5$

3)  $x^3z^3 \cdot x^3z^4$

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

5)  $5z^2(x^3)^2$

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

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

8)  $(y^2)^2 \cdot (5y^5)^3$

9)  $(2xy^2)^2 \cdot (7xy^5)^2$

10)  $2(y)^2$

11)  $(z9x^3)^2$

12)  $(7y \cdot y^3)^2$

13)  $(7zx^4)^3 \cdot z^4x^4$

14)  $(yx^5)^3 \cdot y^2$

15)  $(4yz^2)^3 \cdot (5y)^3$



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## Multiplying Monomials

Simplify each expression.

$$1) yz^4 \cdot 8y^3z^4$$
$$8y^4z^8$$

$$2) z^4x^5 \cdot 3z^5$$
$$3z^9x^5$$

$$3) x^3z^3 \cdot x^3z^4$$
$$x^6z^7$$

$$4) (z \cdot z^4)^2$$
$$z^{10}$$

$$5) 5z^2(x^3)^2$$
$$5z^2x^6$$

$$6) (y^3x^5)^2 \cdot 2y^3$$
$$2y^9x^{10}$$

$$7) (z \cdot 2z)^3$$
$$8z^6$$

$$8) (y^2)^2 \cdot (5y^5)^3$$
$$125y^{19}$$

$$9) (2xy^2)^2 \cdot (7xy^5)^2$$
$$196x^4y^{14}$$

$$10) 2(y)^2$$
$$2y^2$$

$$11) (z9x^3)^2$$
$$81z^2x^6$$

$$12) (7y \cdot y^3)^2$$
$$49y^8$$

$$13) (7zx^4)^3 \cdot z^4x^4$$
$$343z^7x^{16}$$

$$14) (yx^5)^3 \cdot y^2$$
$$y^5x^{15}$$

$$15) (4yz^2)^3 \cdot (5y)^3$$
$$8000y^6z^6$$