

Name _____

Multiplying Exponents

Multiply the exponents with the same base and
Write the answer as a single exponent.

$$1) 3^2 \times 3^4 \times 3^{-2} \times 3^4 \times 3^6 \times 3^{-5} = \underline{3^9}$$

$$2) 2^{-2} \times 2^3 \times 2^4 \times 2^6 = \underline{2^{11}}$$

$$3) 4^3 \times 4^2 \times 4^{-4} \times 4^3 \times 4^6 = \underline{4^{10}}$$

$$4) 6^4 \times 6^{-2} \times 6^{11} = \underline{6^{13}}$$

$$5) a^5 \times a^2 \times a^{-3} \times a^4 = \underline{a^8}$$

$$6) 3^2 \times 3^7 \times 3^{-2} \times 3^6 \times 3^{-4} \times 3^2 \times 3^5 = \underline{3^{16}}$$

$$7) z^4 \times z^{-2} \times z^3 \times z^{-5} \times z^6 = \underline{z^6}$$

$$8) 7^3 \times 7^2 \times 7^{-4} \times 7^{-2} \times 7^5 = \underline{7^4}$$

$$9) 2^6 \times 2^{-3} \times 2^5 \times 2^4 = \underline{2^{12}}$$

$$10) 6^2 \times 6^{-3} \times 6^{-4} \times 6^6 \times 6^4 \times 6^{-2} = \underline{6^7}$$