

Name _____ Date _____

Converting Numerical Expressions

Write the numerical expressions in words. Then, solve.

Expression	Words	The Value of the Expression
a. $12 \times (5 + 25)$		
b. $(62 - 12) \times 11$		

Comparing Expressions

Compare the two expressions using $>$, $<$, or $=$. In the space beneath each pair of expressions, explain how you can compare without calculating. Draw a model if it helps you.

a. $24 \times (20 + 5)$	<input type="radio"/>	$(20 + 5) \times 12$
b. 18×27	<input type="radio"/>	20 twenty-sevens minus 1 twenty-seven
c. 19×9	<input type="radio"/>	3 nineteens, tripled

Explain the Product of these Expressions

Estimate the product. Solve using an area model and the standard algorithm. Remember to express your products in standard form.

a. $22 \times 2.4 \approx \underline{\quad} \times \underline{\quad} = \underline{\quad}$

2.4

× 22

b. $22 \times 24 \underline{\quad} \times \underline{\quad} = \underline{\quad}$

24

× 22

Explain what the relationship of expression "a" to expression "b".

Conversions

a. Convert weeks to days.

$$8 \text{ weeks} = 8 \times (1 \text{ week})$$

$$= 8 \times (7 \text{ days})$$

$$= 56 \text{ days}$$

b. Convert years to days.

$$4 \text{ years} = \underline{\quad} \times (\underline{\quad} \text{ year})$$

$$= \underline{\quad} \times (\underline{\quad} \text{ days})$$

$$= \underline{\quad} \text{ days}$$

c. Convert meters to centimeters.

$$9.2 \text{ m} = \underline{\quad} \times (\underline{\quad} \text{ m})$$

$$= \underline{\quad} \times (\underline{\quad} \text{ cm})$$

$$= \underline{\quad} \text{ cm}$$

d. Convert yards to feet.

$$5.7 \text{ yards}$$