

Reteaching 3-4 Using Formulas

Given that C is the temperature in degrees Celsius, use the formula $F = 1.8C + 32$ to find the temperature F in degrees Fahrenheit. What is the temperature in degrees Fahrenheit for a temperature of 18° in Celsius?

$$F = 1.8C + 32 \quad \text{Write the formula.}$$

$$F = 1.8(18) + 32 \quad \text{Substitute 18 for } C.$$

$$F = 32.4 + 32 \quad \text{Simplify.}$$

$$F = 64.4^\circ$$

The temperature is 64.4° Fahrenheit, or 64.4°F .

Find the temperature in degrees Fahrenheit for each temperature in degrees Celsius.

$$1. C = 4^\circ \quad F = 1.8(\text{_____}) + 32 = \text{_____} + 32 = \text{_____}$$

$$2. C = 40^\circ \quad F = 1.8(\text{_____}) + 32 = \text{_____} + 32 = \text{_____}$$

$$3. C = 22^\circ \quad F = 1.8(\text{_____}) + 32 = \text{_____} + 32 = \text{_____}$$

$$4. C = 35^\circ \quad F = 1.8(\text{_____}) + 32 = \text{_____} + 32 = \text{_____}$$

$$5. C = -6^\circ \quad F = 1.8(\text{_____}) + 32 = \text{_____} + 32 = \text{_____}$$

$$6. C = -24^\circ \quad F = 1.8(\text{_____}) + 32 = \text{_____} + 32 = \text{_____}$$

Given that F is the temperature in degrees Fahrenheit, the formula $C = (F - 32)/1.8$ is the temperature C in degrees Celsius. Find the temperature in degrees Celsius for each temperature in degrees Fahrenheit.

$$7. F = 68^\circ \quad C = (\text{_____} - 32)/1.8 = \text{_____}/1.8 = \text{_____}$$

$$8. F = 17.6^\circ \quad C = (\text{_____} - 32)/1.8 = \text{_____}/1.8 = \text{_____}$$

$$9. F = 5^\circ \quad C = (\text{_____} - 32)/1.8 = \text{_____}/1.8 = \text{_____}$$

$$10. F = 57.2^\circ \quad C = (\text{_____} - 32)/1.8 = \text{_____}/1.8 = \text{_____}$$

$$11. F = 32^\circ \quad C = (\text{_____} - 32)/1.8 = \text{_____}/1.8 = \text{_____}$$

$$12. F = 212^\circ \quad C = (\text{_____} - 32)/1.8 = \text{_____}/1.8 = \text{_____}$$