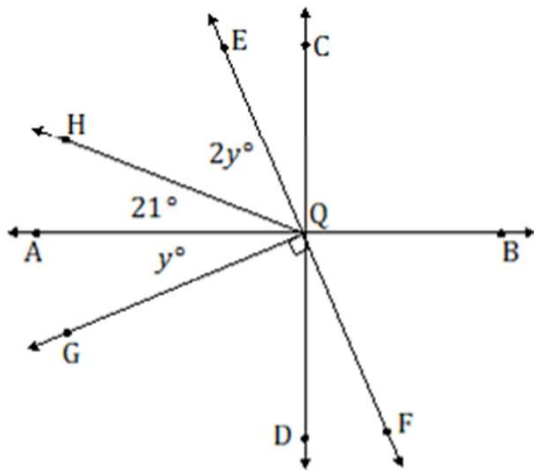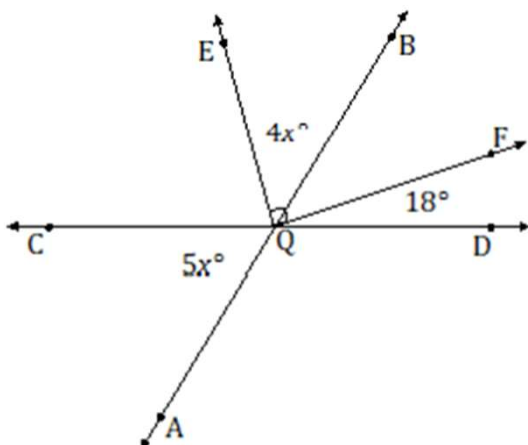# Angle Word Problems Worksheets

1. Find the measures of ∠HQE and ∠AQG.

2. The sum of the measures of two adjacent angles is 72°. The ratio of the smaller angle to the larger angle is 1 ∶ 3. Find the measures of each angle.

3. Find the measures of ∠CQA and ∠EQB.

Angle Word Problems Worksheets
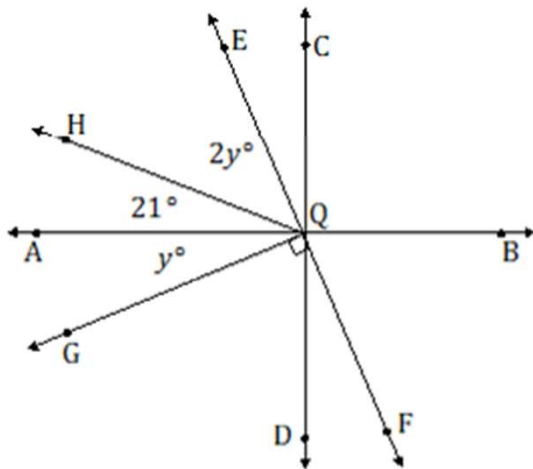
1. Find the measures of $\angle HQE$ and $\angle AQG$.

$$2y + 21 + y = 90$$
$$3y + 21 = 90$$
$$3y + 21 - 21 = 90 - 21$$
$$3y = 69$$
$$\left(\frac{1}{3}\right)3y = \left(\frac{1}{3}\right)69$$
$$y = 23$$

$$m\angle HQE = 2(23°) = 46°$$
$$m\angle AQG = (23°) = 23°$$

2. The sum of the measures of two adjacent angles is 72°. The ratio of the smaller angle to the larger angle is 1 : 3. Find the measures of each angle.

$$\angle A = x, \angle B = 3x$$
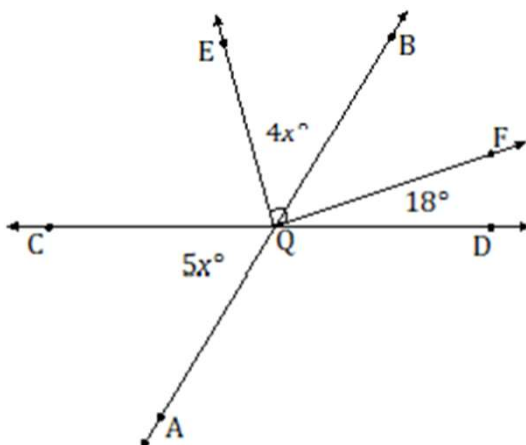$$x + 3x = 72$$
$$4x = 72$$
$$\left(\frac{1}{4}\right)(4x) = \left(\frac{1}{4}\right)(72)$$
$$x = 18$$
$$\angle A = (18°) = 18°$$
$$\angle B = 3(18°) = 54°$$

3. Find the measures of $\angle CQA$ and $\angle EQB$.

$$4x + 5x = 108$$
$$9x = 108$$
$$\left(\frac{1}{9}\right)9x = \left(\frac{1}{9}\right)108$$
$$x = 12$$

$$m\angle CQA = 5(12°) = 60°$$
$$m\angle EQB = 4(12°) = 48°$$