

27. Two friends rent an apartment together. They agree that one person will pay 1.5 times what the other person pays. If the rent is \$850, how much will each friend pay?

28. A shopper's discount club charges a monthly fee of \$15 and sells gasoline for \$2.05 per gallon. The gas station across the street sells gasoline for \$2.35 per gallon and charges no fee. How many gallons of gasoline would you have to buy in one month to spend the same amount at either store?

29. Michael and Kevin are running. Kevin gets a 3-mile head start and runs at a rate of 5.5 mi/h. Michael runs at a rate of 7 mi/h. How many hours will it take Michael to catch up with Kevin?

Solve each equation for y .

30. $y + 3x = 8$

31. $4x - 2y = 15$

32. $x = 9 - 3y$

Solve each equation for x .

~~1.~~ $px + qx = r$

~~2.~~ $c = b - bx$

~~3.~~ $\frac{x-3}{y} = x$

Solve each problem. Round to the nearest tenth.

4. What is the radius of a circle with a circumference of 15 cm?

5. What is the height of a triangle that has a base of 8 in. and an area of 28 in.²?

6. A triangle with equal sides and a square have the same perimeters. The length of a side of the triangle is $2x + 2$. The length of a side of the square is $x + 8$. Write and solve an equation to find x .