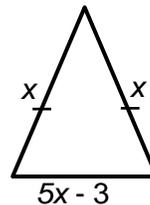
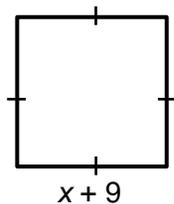


Worksheet – Word Problems with One Variable

Solve each problem using complete solutions and proper form.

1. The two equal sides of an isosceles triangle are 2 cm shorter than the longest side. If the perimeter of the triangle is 83 cm, find the lengths of the two equal sides.
2. The square and the triangle have equal perimeters.
 - a) Determine the value of x .
 - b) Determine the perimeter of each shape.



3. Quinn is thinking of a number. One half of the number added to two fifths of the number is 27. What is the number Quinn is thinking of?
4. One half of a number plus one ninth of the next consecutive even number equals 21. What is the first number?
5. A math test has two parts. Part A has 4 more questions than Part B. Megan missed one eighth of the questions in Part A and one fifth of the questions in Part B. If she missed 7 questions total, how many questions were on the test?
6. Charles and George each have \$8 in some combination of quarters and loonies. Charles has 4 times as many quarters as loonies, and George has 12 times more quarters than loonies. Determine the number of quarters that each boy has.
7. The sides lengths of a triangle are 3 consecutive whole numbers. The perimeter of the triangle is 48 cm. How long is each side?
8. Tom is looking for a company to paint a room in his home. Painter Pro charges a \$45 service fee plus \$23/hour. Colour by Numbers charges a \$62.50 service fee plus \$19.50/hour.
 - a) For what number of hours will the companies charge the same amount?
 - b) What will the charge be for that number of hours?

Answers:

1. 27 cm 2. a) 13 b) 88 cm 3. 30 4. 34 5. 44
 6. Charles: 16 and George: 24 7. 15 cm, 16 cm, 17 cm 8. 5 hrs; \$160