

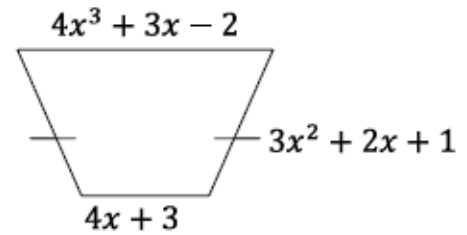
POLYNOMIALS – WORD PROBLEMS

WRITE AN EXPRESSION FOR THE PERIMETER.

1.)

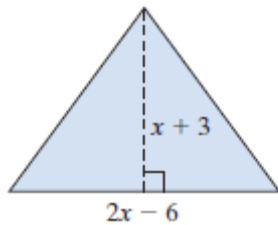


2.)



WRITE AN EXPRESSION FOR THE AREA.

3.)



4.)

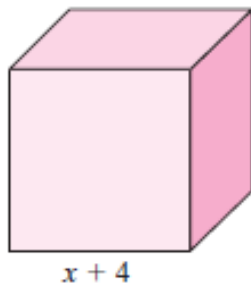
Square



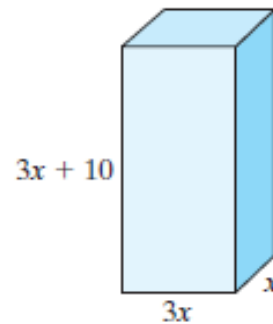
WRITE AN EXPRESSION FOR THE VOLUME.

5.)

Cube

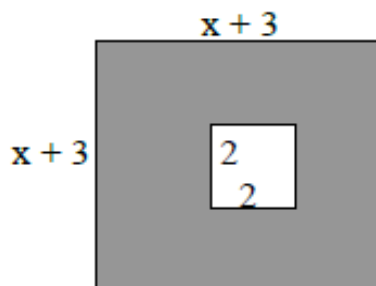


6.)



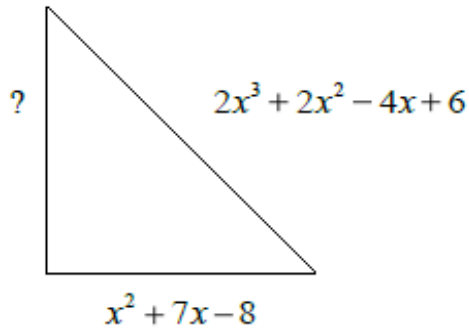
7.) A RECTANGULAR GARDEN HAS A LENGTH OF $x + 8$ UNITS AND A WIDTH OF $x - 4$ UNITS. DRAW A DIAGRAM, AND LABEL THE DIMENSIONS. FIND THE AREA.

8.) FIND THE AREA OF THE SHADED REGION.

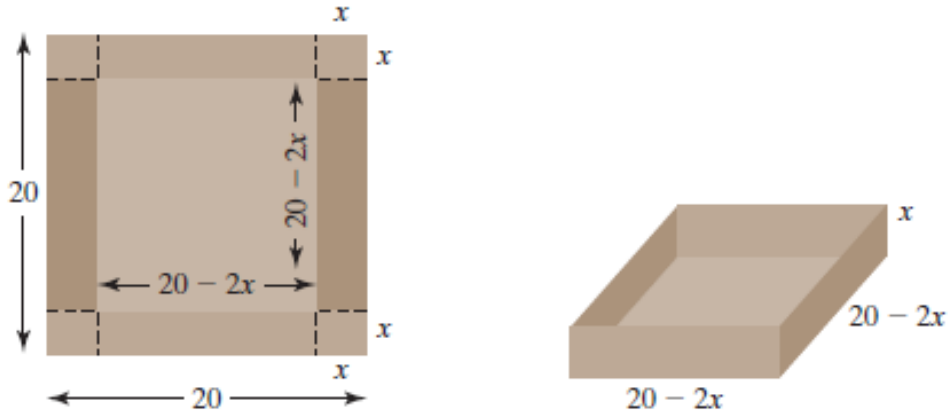


9.) GIVEN THE PERIMETER, FIND THE MISSING SIDE.

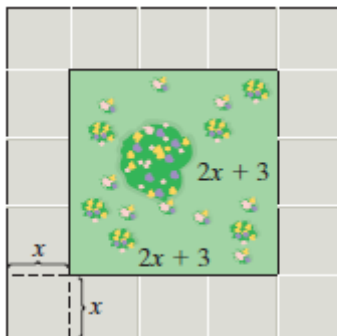
$$P = 2x^3 + 4x^2 + 6x + 3$$



10.) A BOX IS CREATED FROM A SHEET OF CARDBOARD 20 IN. ON A SIDE BY CUTTING A SQUARE FROM EACH CORNER AND FOLDING UP THE SIDES. LET x REPRESENT THE LENGTH OF THE SIDES OF THE SQUARES REMOVED FROM EACH CORNER. FIND AN EXPRESSION FOR THE VOLUME OF THE BOX IN TERMS OF x .



11.) A SQUARE GARDEN IS SURROUNDED BY A WALKWAY OF WIDTH x .



A) FIND THE AREA OF THE GARDEN.

B) FIND THE AREA OF THE WALKWAY AND THE GARDEN.

12.) IF THE PERIMETER OF A RECTANGLE IS EXPRESSED BY $2x^2 + 5x + 9$ AND THE WIDTH IS $2x^2 + 1$, FIND AN EXPRESSION FOR THE LENGTH.