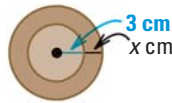


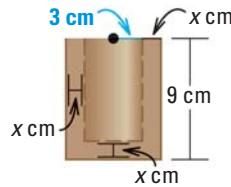
GEOMETRY REVIEW

The volume of clay equals the difference of the volumes of two cylinders.

68. **CHALLENGE** In your pottery class, you are given a lump of clay with a volume of 200 cubic centimeters and are asked to make a cylindrical pencil holder. The pencil holder should be 9 centimeters high and have an inner radius of 3 centimeters. What thickness x should your pencil holder have if you want to use all of the clay?



Top view



Side view



MIXED REVIEW FOR TAKS

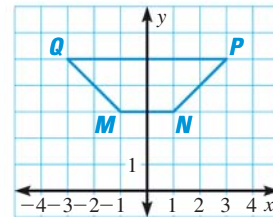
TAKS PRACTICE at classzone.com

REVIEW

TAKS Preparation p. 674;
TAKS Workbook

69. **TAKS PRACTICE** If quadrilateral $MNPQ$ is reflected in the line $y = 3$, in which quadrant will the image of point N appear? **TAKS Obj. 7**

- (A) Quadrant I (B) Quadrant II
(C) Quadrant III (D) Quadrant IV



REVIEW

TAKS Preparation p. 146;
TAKS Workbook

70. **TAKS PRACTICE** A hose adds 120 gallons of water to a swimming pool in 1.5 hours. How many hours will it take for the hose to fill a different swimming pool that holds 600 gallons of water? **TAKS Obj. 9**

- (F) 5 h (G) 6.25 h (H) 7.5 h (J) 8 h

QUIZ for Lessons 4.5–4.7

Solve the equation.

1. $4x^2 = 64$ (p. 266) 2. $3(p - 1)^2 = 15$ (p. 266) 3. $16(m + 5)^2 = 8$ (p. 266)
4. $-2z^2 = 424$ (p. 275) 5. $s^2 + 12 = 9$ (p. 275) 6. $7x^2 - 4 = -6$ (p. 275)

Write the expression as a complex number in standard form. (p. 275)

7. $(5 - 3i) + (-2 + 5i)$ 8. $(-2 + 9i) - (7 + 8i)$ 9. $3i(7 - 9i)$
10. $(8 - 3i)(-6 - 10i)$ 11. $\frac{4i}{-6 - 11i}$ 12. $\frac{3 - 2i}{-8 + 5i}$

Write the quadratic function in vertex form. Then identify the vertex. (p. 284)

13. $y = x^2 - 4x + 9$ 14. $y = x^2 + 14x + 45$ 15. $f(x) = x^2 - 10x + 17$
16. $g(x) = x^2 - 2x - 7$ 17. $y = x^2 + x + 1$ 18. $y = x^2 + 9x + 19$

19. **FALLING OBJECT** A student drops a ball from a school roof 45 feet above ground. How long is the ball in the air? (p. 266)