

تدريبات القسم الالكتروني والورقي وفق الهيكل الوزاري منهج ريفيل



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف العاشر العام ← رياضيات ← الفصل الثاني ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 23:59:48 2025-03-16

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي | للمدرس

المزيد من مادة
رياضيات:

التواصل الاجتماعي بحسب الصف العاشر العام



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف العاشر العام والمادة رياضيات في الفصل الثاني

حل ملزمة أسئلة وفق الهيكل الوزاري منهج بريدج	1
حل نماذج السؤال 17 من الهيكل الوزاري منهج ريفيل	2
تجميعية أسئلة شاملة وفق الهيكل الوزاري حسب منهج بريدج	3
حل تجميعية أسئلة شاملة وفق الهيكل الوزاري حسب منهج بريدج	4
حل بالخطوات أسئلة امتحان نهائي سابق منهج بريدج القسم الالكتروني	5

Find each sum or difference.

$$27) (3c^3 - c + 11) - (c^2 + 2c + 8) =$$

$$28) (z^2 + z) + (z^2 - 11) =$$

$$29) (2x - 2y + 1) - (3y + 4x) =$$

$$30) (4a - 5b^2 + 3) + (6 - 2a + 3b^2) =$$

$$31) (x^2y - 3x^2 + y) + (3y - 2xy^2) =$$

$$33) (5n - 2p^2 + 2np) - (4p^2 + 4n) =$$

35. PROFIT Company A and Company B both started their businesses in the same year. The profit P , in millions, of Company A is given by the equation $P = 3.2x + 12$, where x is the number of years in business. The profit P , in millions, of Company B is given by the equation $P = 2.7x + 10$, where x is the number of years in business.

a. Write a polynomial equation to give the difference in profit D after x years.

b. Predict the difference in profit after 10 years.

36. ENVELOPES An office supply company produces yellow document envelopes. The envelopes come in a variety of sizes, but the length is always 4 centimeters more than double the width, x .

a. Write a polynomial equation to give the perimeter P of any of the envelopes.

b. Predict the perimeter of an envelope with a width of 6 centimeters.

Classify each polynomial according to its degree and number of terms.

37) $4x - 3x^2 + 5$

What is the Degree of a Polynomial?

The degree of a polynomial is equal to the degree of the highest degree term.

$4x^3 - 2x^2 + 3x - 1$

3rd degree 2nd degree 1st degree 0 degree

Note: The degree corresponds to the exponent of the variable in the term.

38) $11z^3$

39) $9 + y^4$

40) $3x^3 - 7x$

41) $-2x^5 - x^2 + 5x - 8$

42) $10t - 4t^2 + 6t^3$

45. $(3c^2 - 7) + (4c + 7) - (c^2 + 5c - 8)$

2	Multiply a polynomial by a monomial	P 641 P 642	1-12 23-42
---	--	----------------	---------------

Simplify each expression.

1. $b(b^2 - 12b + 1)$

2. $f(f^2 + 2f + 25)$

3. $-3m^3(2m^3 - 12m^2 + 2m + 25)$

4. $2j^2(5j^3 - 15j^2 + 2j + 2)$

5) $2pr^2(2pr + 5p^2r - 15p)$

6. $4t^3u(2t^2u^2 - 10tu^4 + 2)$

Simplify each expression.

7. $-3(5x^2 + 2x + 9) + x(2x - 3)$

8. $a(-8a^2 + 2a + 4) + 3(6a^2 - 4)$

9. $-4d(5d^2 - 12) + 7(d + 5)$

10. $-9g(-2g + g^2) + 3(g^3 + 4)$

11. $2j(7j^2k^2 + jk^2 + 5k) - 9k(-2j^2k^2 + 2k^2 + 3j)$

$$12. 4n(2n^3p^2 - 3np^2 + 5n) + 4p(6n^2p - 2np^2 + 3p)$$

$$37. -p(2p - 8) - 5p$$

$$38. y^2(-4y + 5) - 6y^2$$

$$39. 2x(3x^2 + 4) - 3x^3$$

$$41. 4b(-5b - 3) - 2(b^2 - 7b - 4)$$

$$42. 3m(3m + 6) - 3(m^2 + 4m + 1)$$

3	Multiplying Polynomials	P 649	1-17
---	--------------------------------	-------	------

Find each product.

$$1. (3c - 5)(c + 3)$$

$$2. (g + 10)(2g - 5)$$

3. $(6a + 5)(5a + 3)$

4. $(4x + 1)(6x + 3)$

5. $(5y - 4)(3y - 1)$

6. $(6d - 5)(4d - 7)$

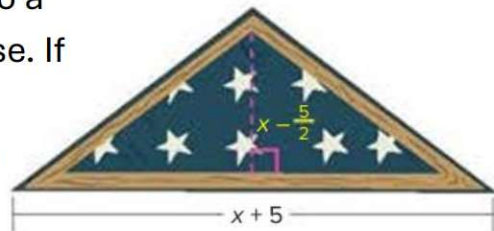
8. $(7n - 6)(7n - 6)$

7. $(3m + 5)(2m + 3)$

13. **PLAYGROUND** The dimensions of a playground are represented by a width of $9x + 1$ feet and a length of $5x - 2$ feet. Write an expression that represents the area of the playground.

14. **THEATER** The Loft Theater has a center seating section with $3c + 8$ rows and $4c - 1$ seats in each row. Write an expression for the total number of seats in the center section.

- 16) **FLAG CASE** A United States flag is sometimes folded into a triangle shape and displayed in a triangular display case. If a display case has dimensions shown in inches, write a polynomial expression that represents the area of wall space covered by the display case.



17. **NUMBER THEORY** Think of a whole number. Subtract 2. Write down this number. Take the original number and add 2. Write down this number. Find the product of the numbers you wrote down. Subtract the square of the original number. The result is always -4 . Use polynomials to show how this number trick works.

4	Special Products	P 659	50-70
---	-------------------------	-------	-------

Find each product.

50. $(2a - 3b)^2$

51. $(5y + 7)^2$

53. $(10x - 2)(10x + 2)$

54. $(3t + 12)(3t - 12)$

55. $(a + 4b)^2$

56. $(3q - 5r)^2$

$$57. (2c - 9d)^2$$

$$59. (6y - 13)(6y + 13)$$

$$60. (3a^4 - b)(3a^4 + b)$$

$$63. \left(\frac{3}{4}k + 8\right)^2$$

$$64. \left(\frac{2}{5}y - 4\right)^2$$

$$66. (2m + 3)(2m - 3)(m + 4)$$

Find each product.

$$68. (c + d)(c + d)(c + d)$$

$$70. (f + g)(f - g)(f + g)$$

5	Factor polynomials by using the Distributive Property	P 665	1-25
---	--	-------	------

Use the Distributive Property to factor each polynomial.

$$1. 16t - 40y$$

$$2. 30v + 50x$$

$$3. 2k^2 + 4k$$

$$4. 5z^2 + 10z$$

5. $4a^2b^2 + 2a^2b - 10ab^2$

6. $5c^2v - 15c^2v^2 + 5c^2v^3$

7. **PHYSICS** The distance d an object falls after t seconds is given by $d = 16t^2$ (ignoring air resistance). To find the height of an object launched upward from ground level at a rate of 32 feet per second, use the expression $32t - 16t^2$, where t is the time in seconds. Factor the expression.

8. **SWIMMING POOL** The area of a rectangular swimming pool is given by the expression $12w - w^2$, where w is the width of one side. Factor the expression.

Factor each polynomial.

11. $fg - 5g + 4f - 20$

12. $a^2 - 4a - 24 + 6a$

$$13. hj - 2h + 5j - 10$$

$$14. xy - 2x - 2 + y$$

$$15. 45pq - 27q - 50p + 30$$

$$16. 24ty - 18t + 4y - 3$$

$$17. 3dt - 21d + 35 - 5t$$

$$18. 8r^2 + 12r$$

$$24. 2j^2 + 2j + 3j + 3$$

$$25. 2a^2 - 4a + a - 2$$

6

Factor trinomials of the form $ax^2 + bx + c$

P 673

51-70

Factor each polynomial, if possible. If the polynomial cannot be factored using integers, write prime.

$$51. 9p^2 + 6p - 8$$

$$52. 6q^2 - 13q + 6$$

53. $a^2 - 10a + 21$

54. $x^2 + 2x - 15$

59. $p^2 - 10p + 21$

65. $-6x^2 - 23x - 20$

70. $-12x^2 + x + 20$

7	Identify parts of circles and use in solving problems on relations between circles	P 228	17-26
---	--	-------	-------

Find the diameter and radius of a circle to the nearest hundredth with the given circumference.

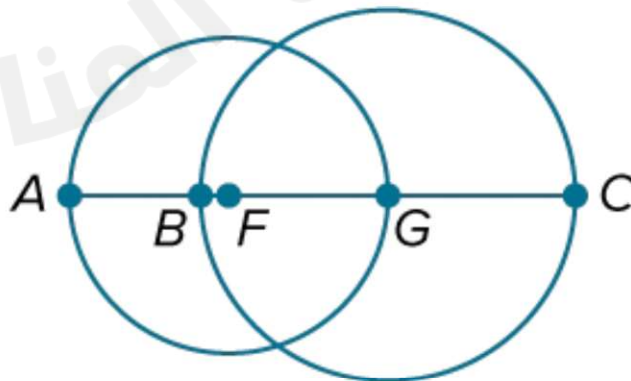
17. $C = 40$ in.

22. $C = 204.16$ m

The diameters of $\odot F$ and $\odot G$ are 5 and 6 units, respectively. Find each measure.

23. BF

24. AB

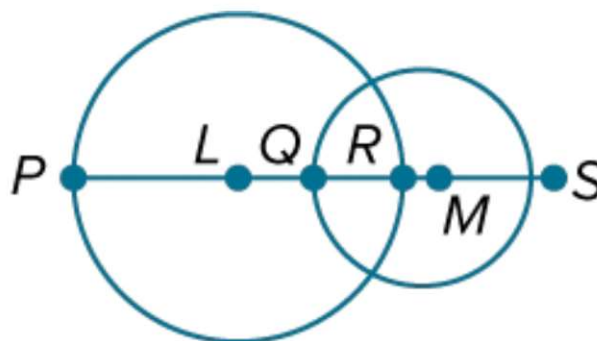


The diameters of $\odot L$ and $\odot M$ are 20 and 13 units, respectively, and $QR = 4$.

Find each measure.

25. LQ

26. RM



8 **Convert between degree measures and radian measures**

P 238

26-31

Write each degree measure in radians as a multiple of π .

26. 120°

27. 45°

28. 30°

29. 90°

30. 180°

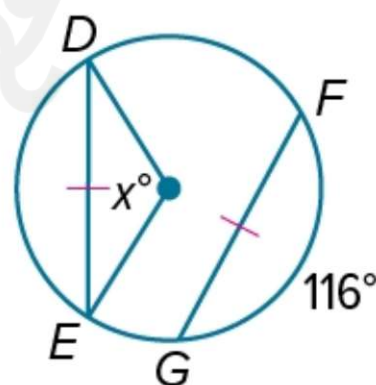
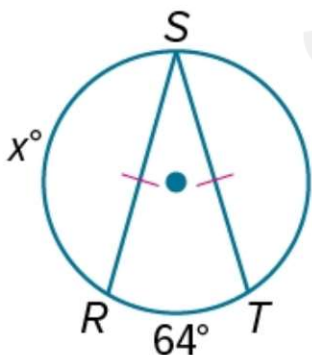
31. 225°

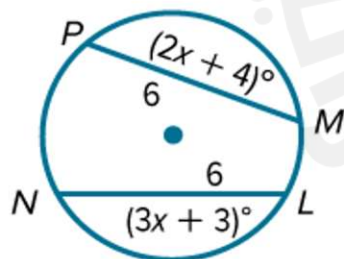
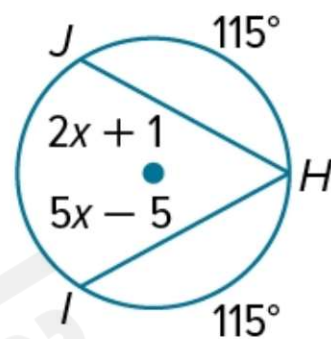
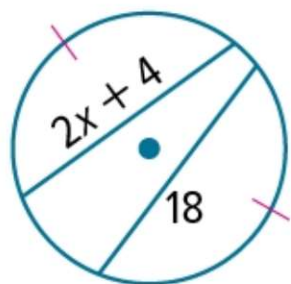
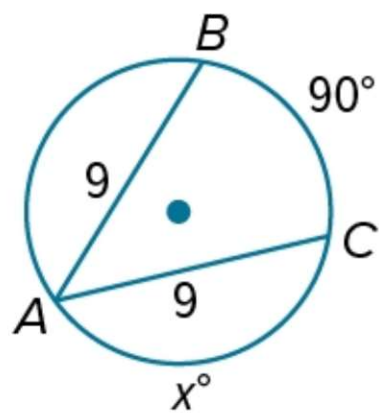
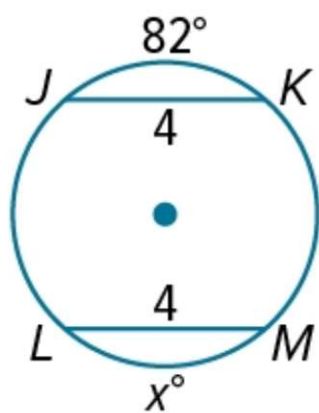
9 **Recognize and use relationships between arcs, chords, and diameters**

P 245

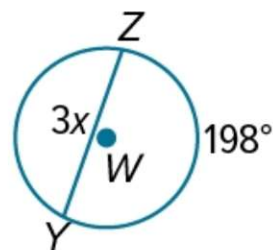
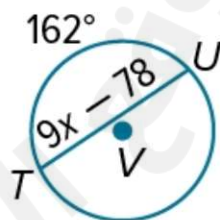
1-15

Find the value of x .



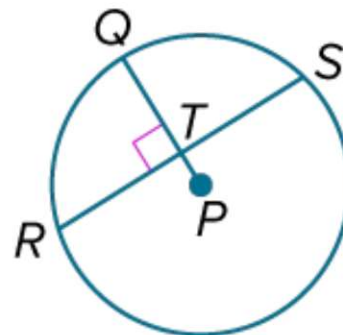


9. $\odot V \cong \odot W$



In $\odot P$, $PQ = 13$ and $RS = 24$. Find each measure.

10. RT



11. PT

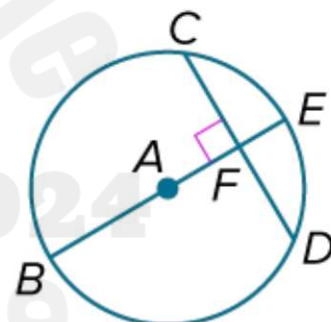
12. TQ

In $\odot A$, $EB = 12$, $CD = 8$, and $m\widehat{CD} = 90^\circ$. Find each measure. Round to the nearest hundredth, if necessary.

13. $m\widehat{DE}$

14. FD

15. AF



10

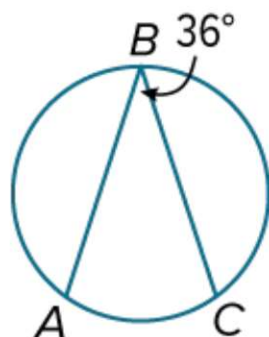
Find measures of inscribed angles

P: 251

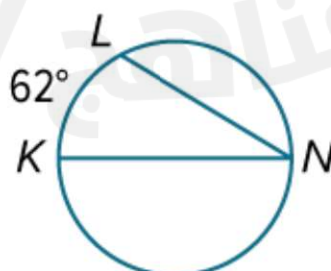
1-10

Find each measure.

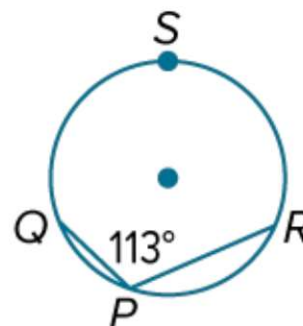
1. $m\widehat{AC}$



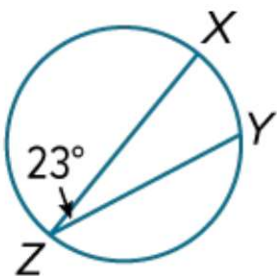
2. $m\angle N$



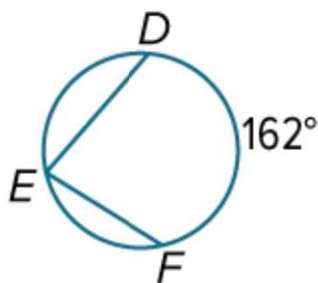
3. $m\widehat{QSR}$



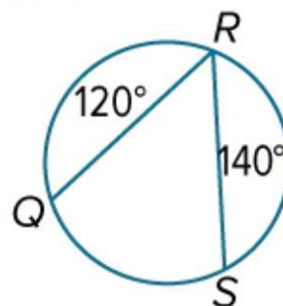
4. $m\widehat{XY}$



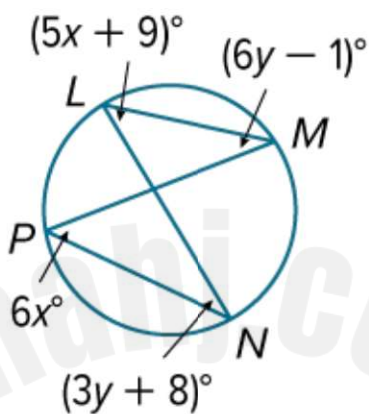
6. $m\angle R$



5. $m\angle E$



7. $m\angle N$



8. $m\angle L$

11

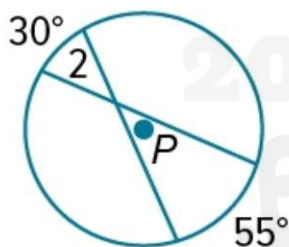
Tangents, Secants, and Angle Measures

P: 265

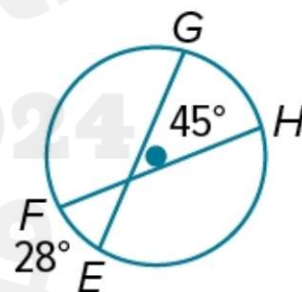
1-15

Find each measure.

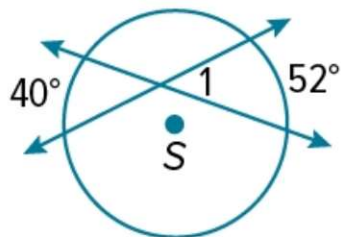
1. $m\angle 2$



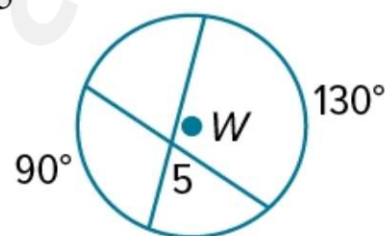
3. $m\widehat{GH}$



2. $m\angle 1$

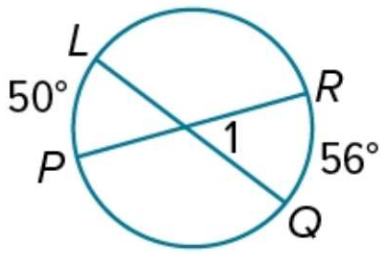


4. $m\angle 5$

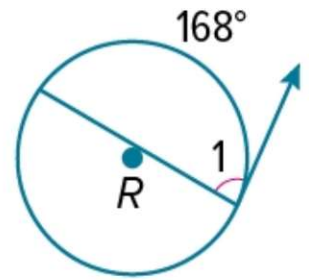


Find each measure. Assume that segments that appear to be tangent are tangent.

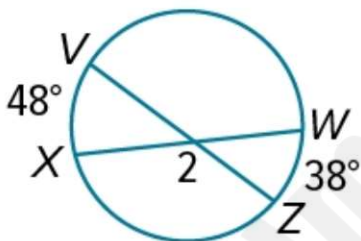
5. $m\angle 1$



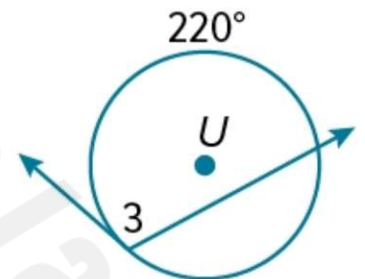
7. $m\angle 1$



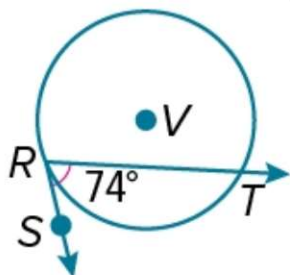
6. $m\angle 2$



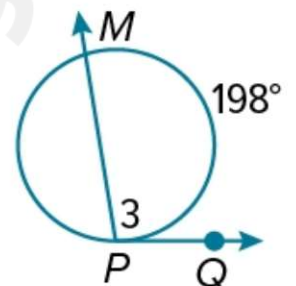
8. $m\angle 3$

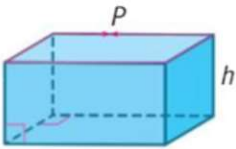
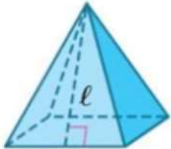
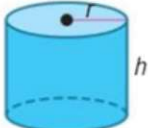
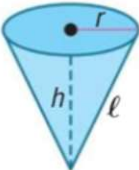
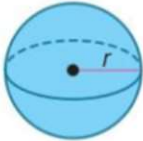


9. $m\widehat{RT}$

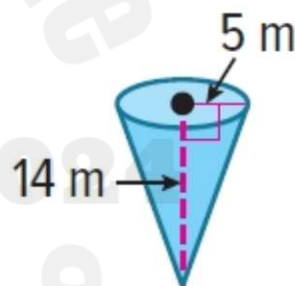
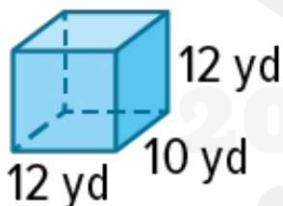


11. $m\angle 3$

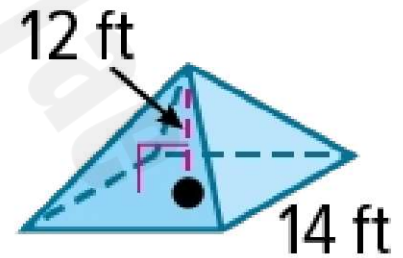
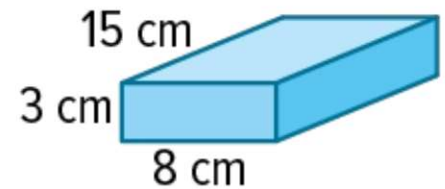


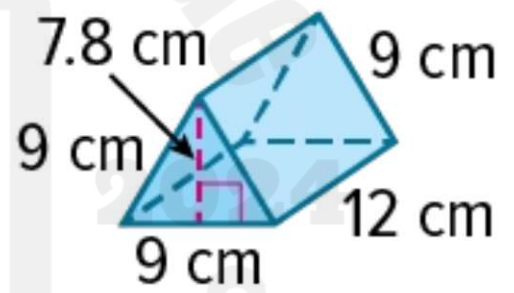
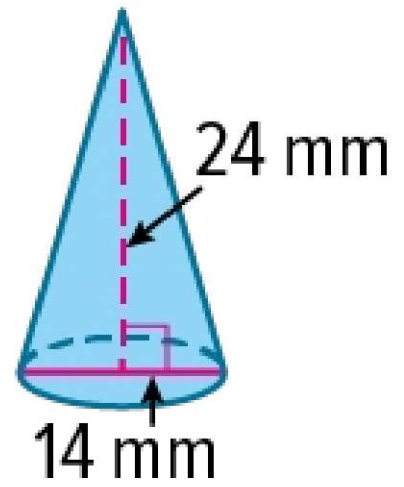
Prism	Right Regular Pyramid	Cylinder	Cone	Sphere
				
$S = Ph + 2B$	$S = \frac{1}{2}P\ell + B$	$S = 2\pi rh + 2\pi r^2$	$S = \pi r\ell + \pi r^2$	$S = 4\pi r^2$
$V = Bh$	$V = \frac{1}{3}Bh$	$V = \pi r^2 h$	$V = \frac{1}{3}\pi r^2 h$	$V = \frac{4}{3}\pi r^3$
S = total surface area P = perimeter of the base		V = volume B = area of base		h = height of a solid ℓ = slant height, r = radius

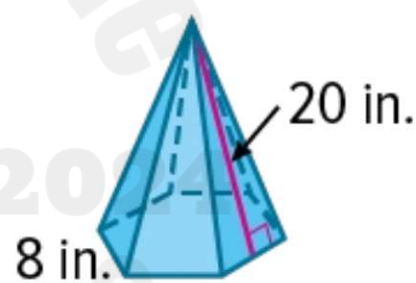
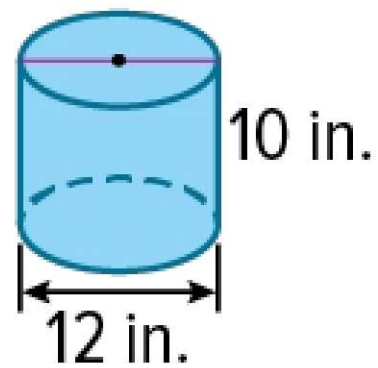
Find the lateral area and surface area of each solid. Round to the nearest tenth, if necessary.

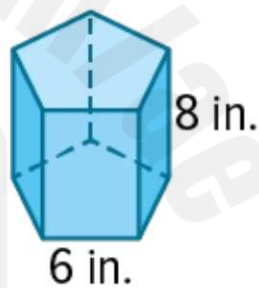
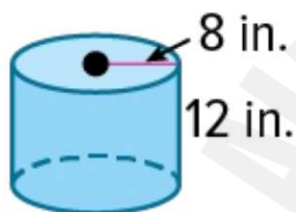
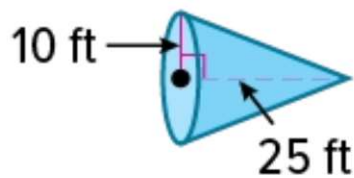
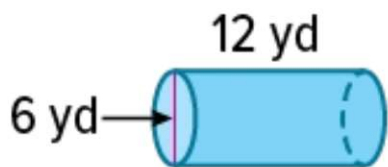


Find the lateral area and surface area of each solid. Round to the nearest tenth, if necessary.

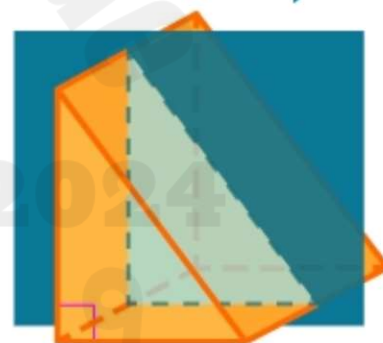
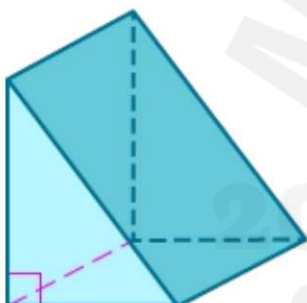
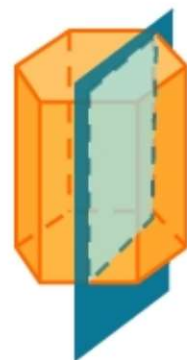
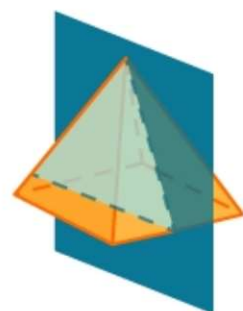
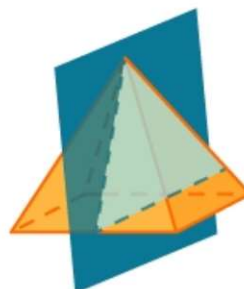




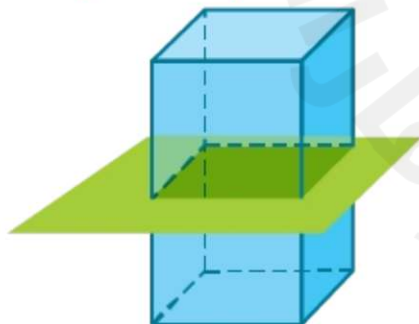


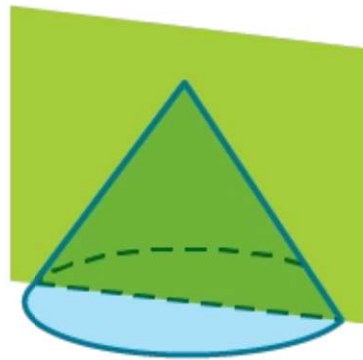
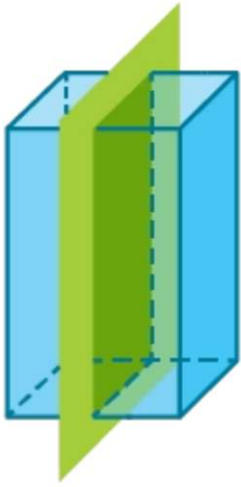


Describe each plane of symmetry for each solid.

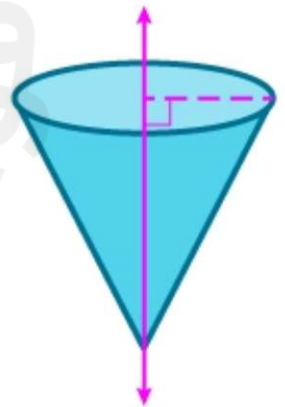
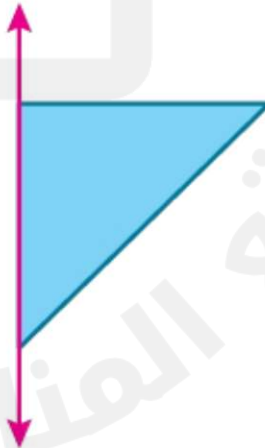
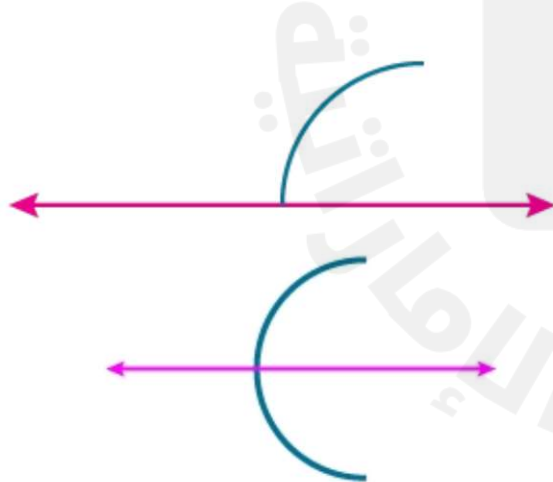
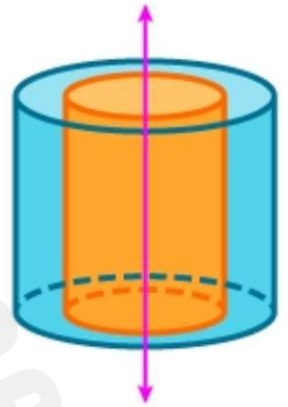
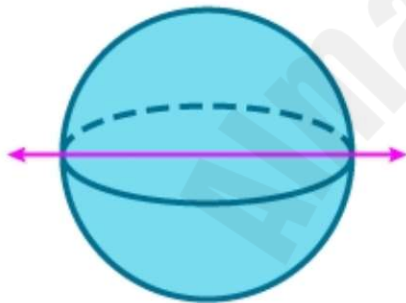
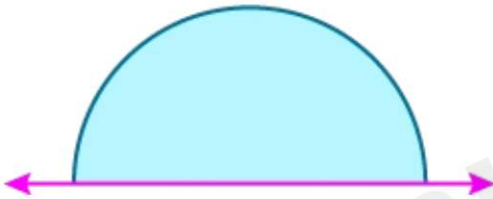


Identify the shape of each cross section.

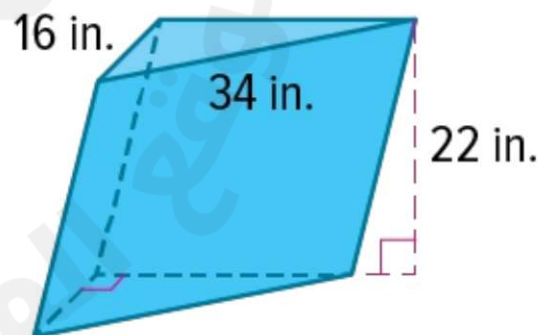
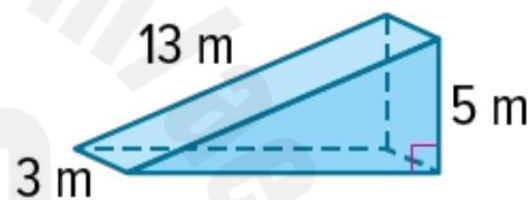
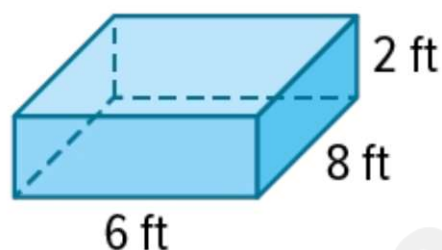
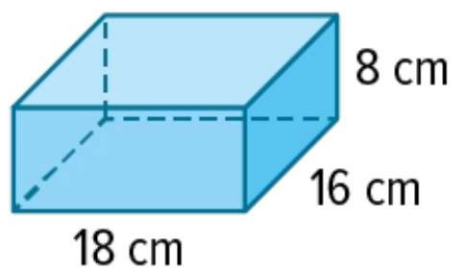


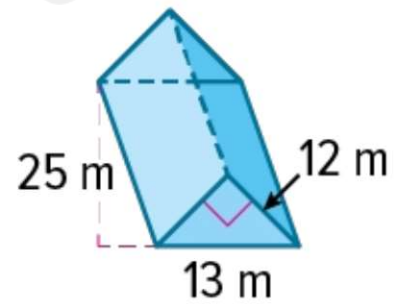
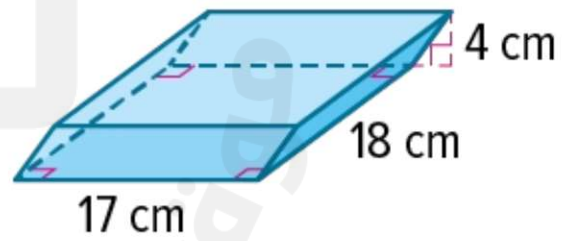
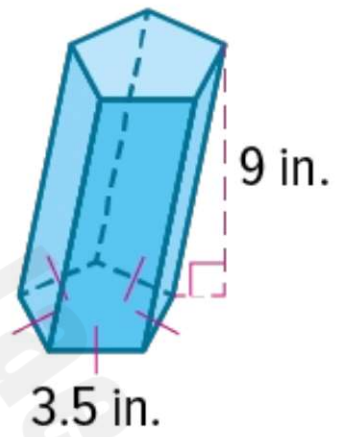
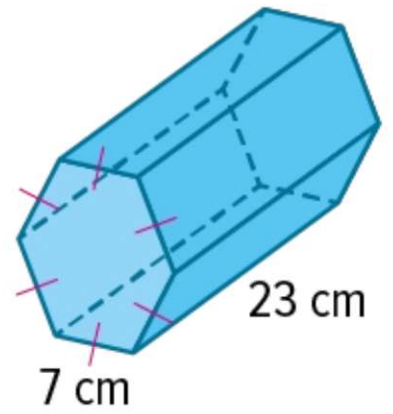


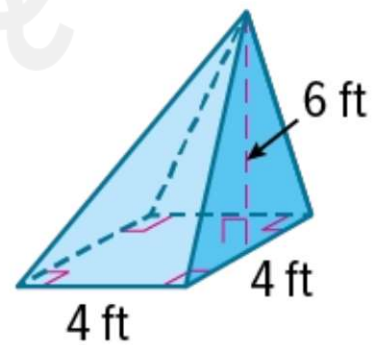
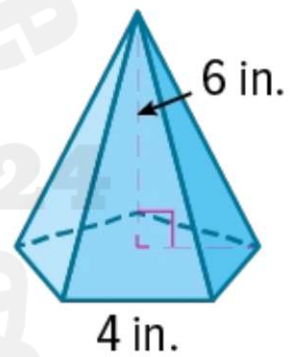
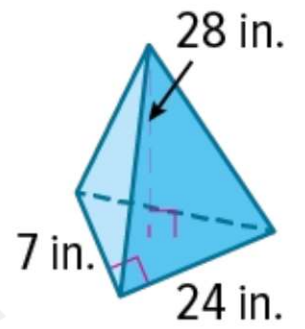
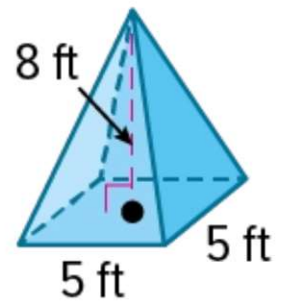
Identify the solid formed by rotating each two-dimensional shape about each line.



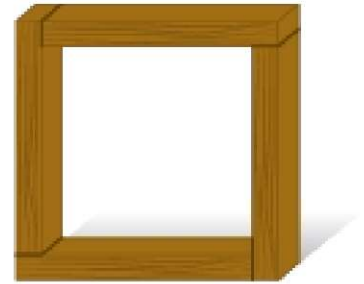
Find the volume of each prism or pyramid. Round your answer to the nearest tenth, if necessary.



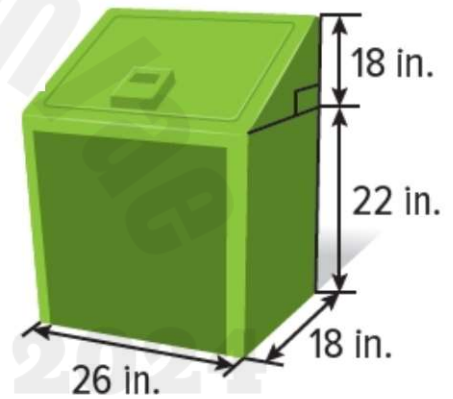




- 20) **FRAMES** Margaret makes a square frame out of four pieces of wood. Each piece of wood is a rectangular prism with a length of 40 centimeters, a height of 4 centimeters, and a depth of 6 centimeters. What is the total volume of the wood used in the frame?



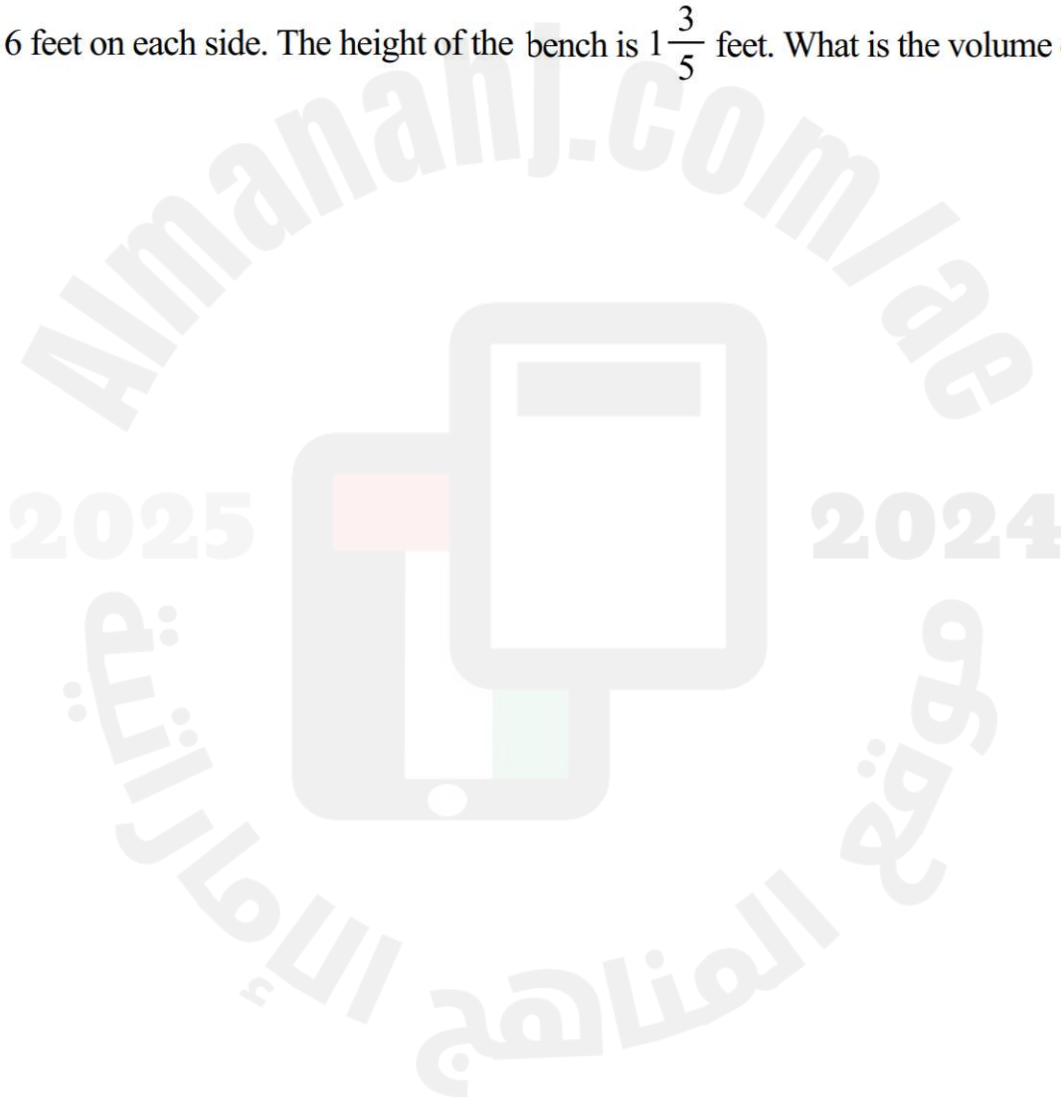
21. **PARKS** Grimby Park is installing new animalproof trashcans. Approximate the volume of the trashcan.



22. A rectangular prism has a length of 16 feet, a width of 9 feet, and a height of 8 feet. Find the volume of the prism.

23. A pyramid has a height of 18 centimeters and a base with an area of 26 square centimeters. Find the volume.

24. **BENCH** Inside a lobby, there is a bench shaped like a simple block with a square base that measures 6 feet on each side. The height of the bench is $1\frac{3}{5}$ feet. What is the volume of the bench?



Part 2 (FR Questions)

16	1)Factorize binomials that are the difference of squares. 2) Factor perfect square trinomials	P: 679	17-21
		P: 686	21-23

17. DECORATING Marvin saw a rug in a store that he would like to purchase. It has an area represented by the expression shown on the rug. He cannot remember the length and width, but he remembers that the length and the width were the same.

$$x^2 - 16x + 64$$

a. Factor the expression that represents the area of the rug.

b. What do the factors in the factored expression represent?

Determine whether each trinomial is a perfect square trinomial. Write *yes* or *no*. If so, factor it.

18. $4x^2 - 42x + 110$

Is _____ a perfect square?

Is _____ a perfect square?

Is _____ equal to _____ ?

19. $16x^2 - 56x + 49$

Is _____ a perfect square?

Is _____ a perfect square?

Is _____ equal to _____ ?

20. $81x^2 - 90x + 25$

Is _____ a perfect square?

Is _____ a perfect square?

Is _____ equal to _____ ?

21. $x^2 + 26x + 168$

Is _____ a perfect square?

Is _____ a perfect square?

Is _____ equal to _____ ?

A. $49x^2 + 112x + 64$

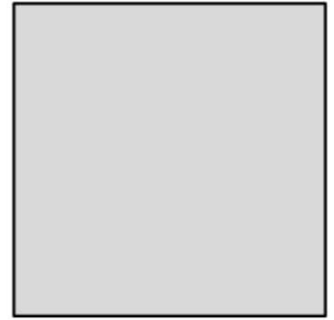
B. $16x^2 - 24x + 9$

C. $49x^2 + 30x + 64$

D. $9x^2 - 6x + 16$

E. $x^2y^2 - 10xy^2 + 25y^2$

23. **MULTIPLE CHOICE** A square piece of cloth has an area of $4y^2 - 28y + 49$ square meters. Find the length of each side.

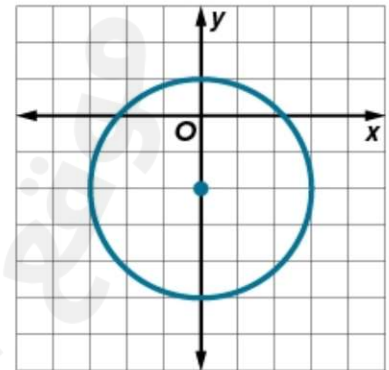
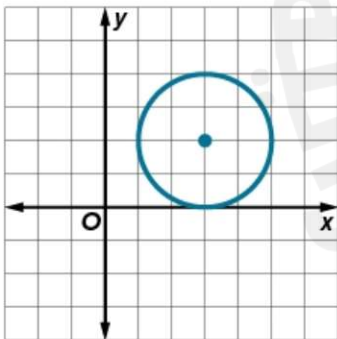


17	Write the equation of a circle	P:271	1-4 9-12
----	---------------------------------------	-------	----------

Write the equation of each circle.

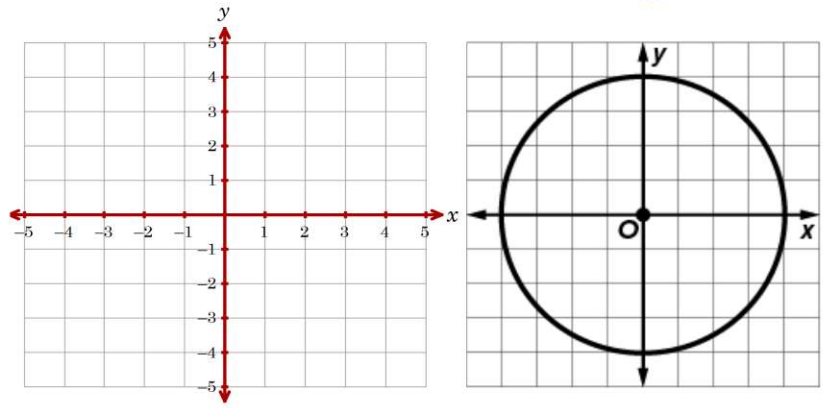
1. center at (0, 0), radius 8

2. center at (2, -6), diameter 8

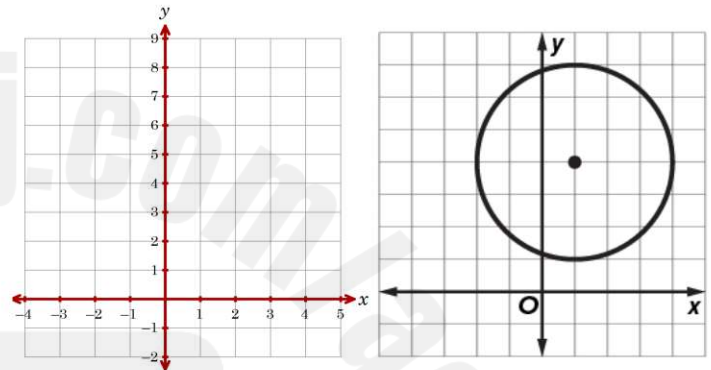


State the coordinates of the center and the measure of the radius of the circle with the given equation. Then graph the equation

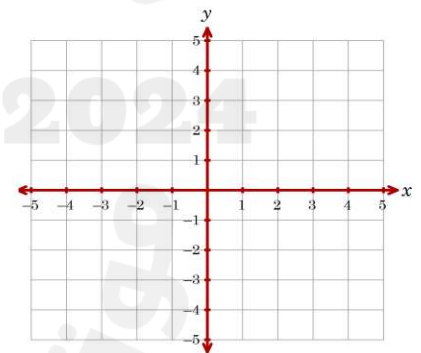
9. $x^2 + y^2 = 16$



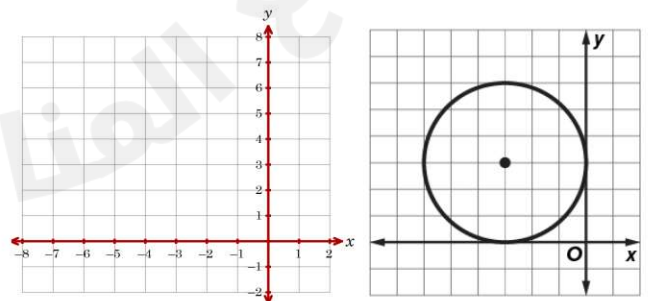
10. $(x - 1)^2 + (y - 4)^2 = 9$



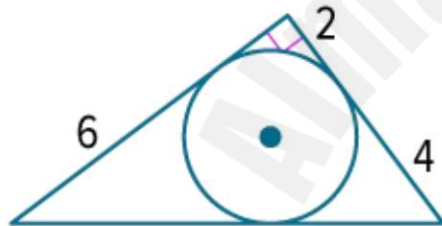
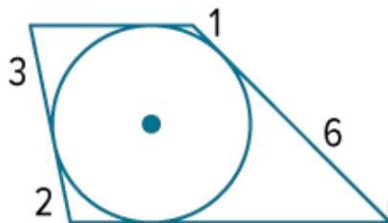
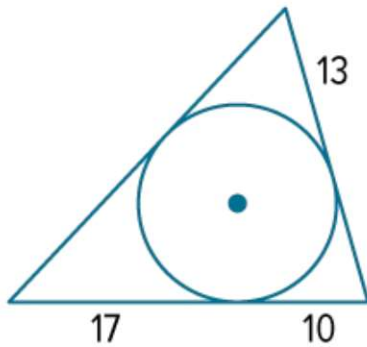
11. $x^2 + y^2 - 4 = 0$



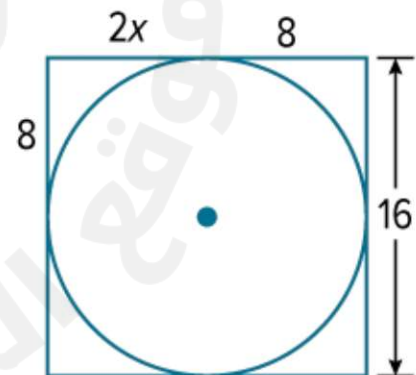
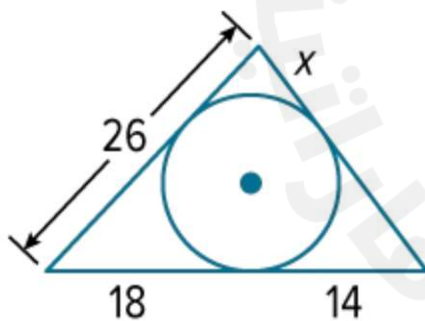
12. $x^2 + y^2 + 6x - 6y + 9 = 0$

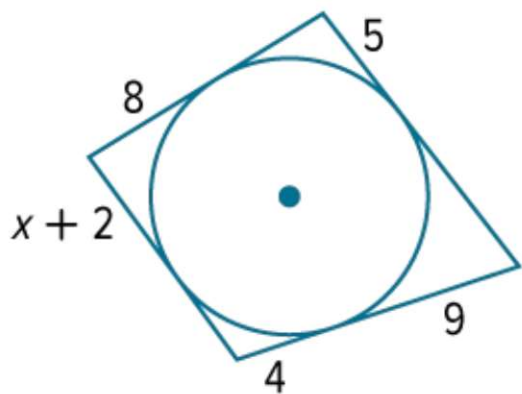


Each polygon is circumscribed about a circle. Find the perimeter of each polygon.



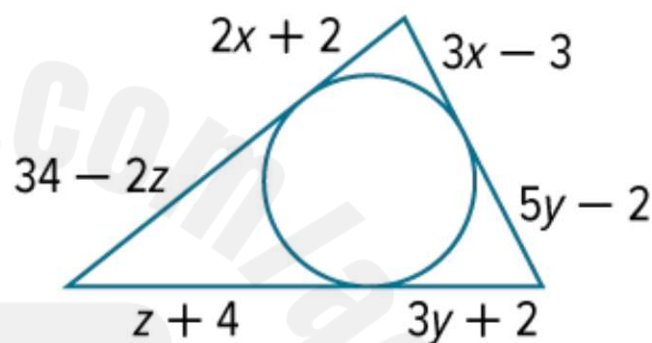
Each polygon is circumscribed about a circle. Find the value of x . Then find the perimeter of each polygon





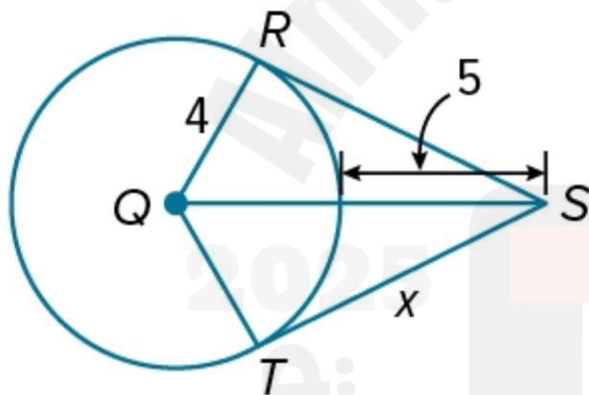
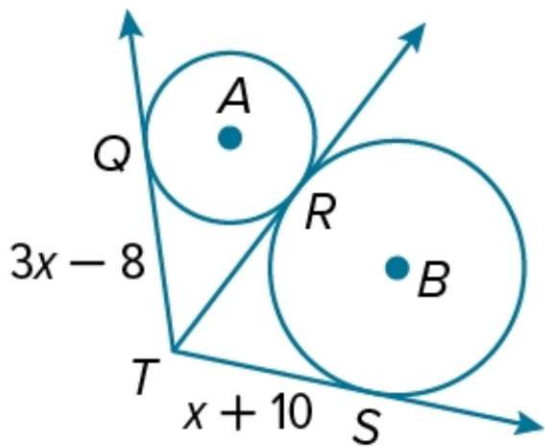
31. **JEWELRY** Joan is designing a pendant with a circular gem inscribed in a triangle.

a. Find the values of x , y , and z .



b. Find the perimeter of the triangle.

PRECISION Find the value of x to the nearest hundredth. Assume that segments that appear to be tangent are tangent.



1. **DISPOSAL** The Meyer family uses a kitchen trash can shaped like a cylinder. It has a height of 18 inches and a base diameter of 12 inches. What is the approximate volume of the trash can? Round your answer to the nearest tenth of a cubic inch.
2. **COFFEE** A roasting company sells their coffee in canisters shaped like a cylinder. The radius of the canister is 1.5 inches and the height is 7.5 inches. What is the approximate volume of a coffee canister? Round your answer to the nearest cubic inch.
3. Find the volume of a cylinder with a radius of $2x$ millimeters and a height of $x - 2$ millimeters.
 - a. Find the volume of the cylinder in terms of x and π .
 - b. Find the volume of the cylinder if $x = 10$. Round your answer to the nearest tenth.

4. Find the volume of a cylinder with a diameter that is 6 centimeters shorter than the height x .

a. Find the volume of the cylinder in terms of x and π .

b. Find the volume of the cylinder if the height is 14 centimeters.

Round your answer to the nearest tenth.

5. Find the volume of a cylinder with a radius of x feet and a height of $3x + 4$ feet.

a. Find the volume of the cylinder in terms of x and π .

b. Find the volume of the cylinder if $x = 3$. Round your answer to the nearest tenth.

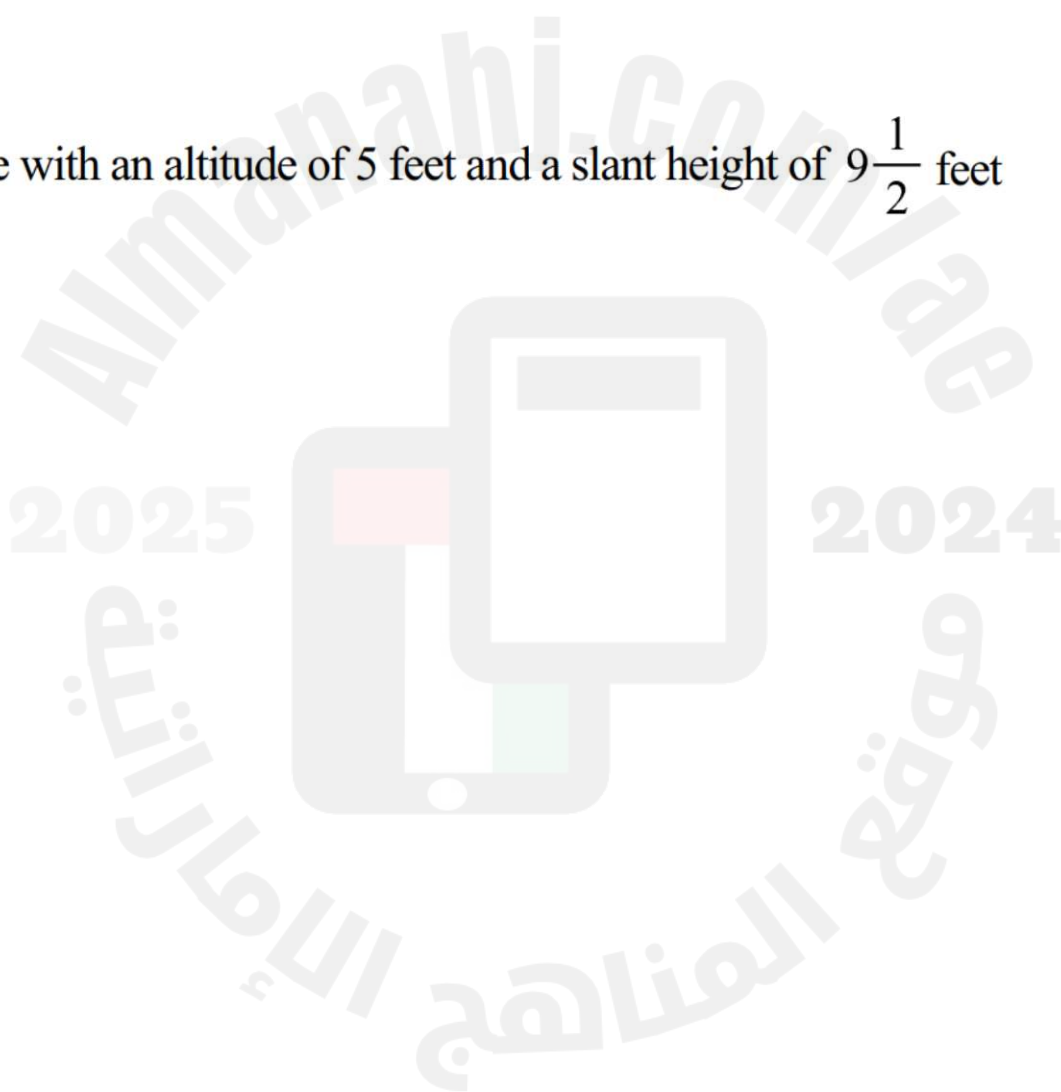
28. a triangular prism with height of 6 inches, right triangular base with legs of 9 inches and 12 inches

29. a square pyramid with an altitude of 12 inches and a slant height of 18 inches

30. a regular hexagonal pyramid with a base edge of 6 millimeters and a slant height of 9 millimeters

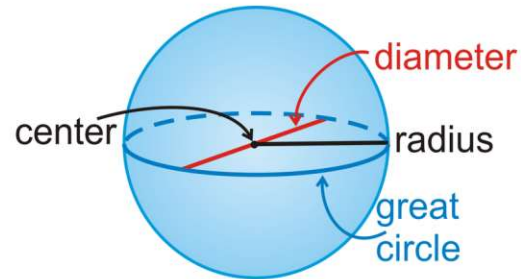
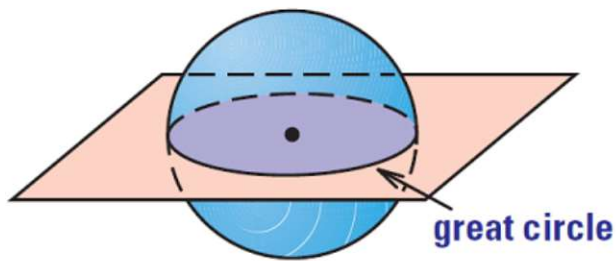
31. a cone with a diameter of 3.4 centimeters and a slant height of 6.5 centimeters

32. a cone with an altitude of 5 feet and a slant height of $9\frac{1}{2}$ feet



33. A *great circle* of a sphere lies on a plane that passes through the center of the sphere. The diameter of a great circle of a sphere is the *diameter of the sphere*.

- a. Find the surface area of a sphere with a great circle that has a circumference of 2π centimeters. Round to the nearest tenth, if necessary.



- b. Find the surface area of a sphere with a great circle that has an area of about 32 square feet. Round to the nearest tenth, if necessary.