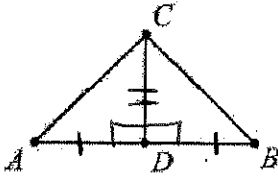


UNIT 1

MONDAY - Feb 8

Figure, CD is the perpendicular bisector of AB.



Justify $\triangle ADC \cong \triangle BDC$.

SAS Cong Th.

TUESDAY - Feb 9

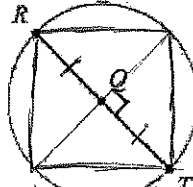
Which of the following is needed to show a parallelogram is a rectangle?

- A. The diagonals bisect each other. ~~X~~
- B. The diagonals are \cong . (circled)
- C. The diagonals are \cong and perpendicular. ~~X~~
- D. The diagonals bisect each other and are perpendicular. ~~X~~



WEDNESDAY - Feb 10

What would be the next step in constructing an inscribed square?



construct the perpendicular bisector to \overline{RT} .

THURSDAY - Feb 11

Which transformation results in a figure that is similar to the original figure but has a greater area?

- A. $k = 0.25$ Reduction
- B. $k = 0.50$ Reduction
- C. $k = 1$ congruent
- D. $k = 2$ enlargement (circled)

UNIT 2 and UNIT 5

Find the solutions to the following:

$$3x^2 - 5x + 2 = 0$$

$$a = 3 \quad b = -5 \quad c = 2$$

$$x = \frac{5 \pm \sqrt{(-5)^2 - 4(3)(2)}}{2(3)}$$

$$x = \frac{5 \pm \sqrt{1}}{6}$$

$$\frac{5+1}{6} = 1 \quad \frac{5-1}{6} = \frac{4}{6} = \frac{2}{3}$$

Factor the following:

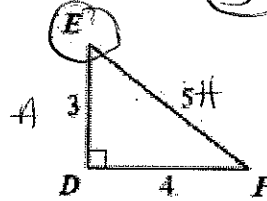
$$\frac{2x^2 - 2x - 12}{2} = \frac{2x^2 - 2x - 12}{2}$$

$$2(x^2 - x - 6)$$

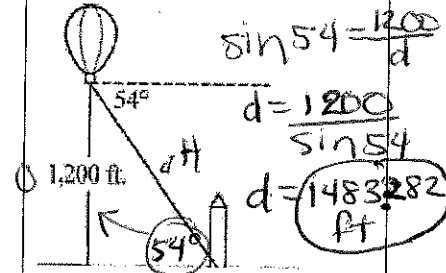
$$2(x-3)(x+2)$$

What ratio represents $\cos E$?

$$\frac{A}{H} = \frac{3}{5}$$

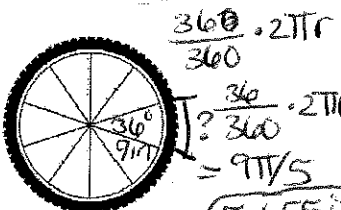


A hot air balloon is 1200' above the ground. The angle of depression from the basket to the base of a monument is 54° . Find d.



UNIT 3

The spokes of a wheel form 10 congruent central angles. The diameter of the wheel is 18 inches. What is the length of the outer edge of the wheel between 2 consecutive spokes?



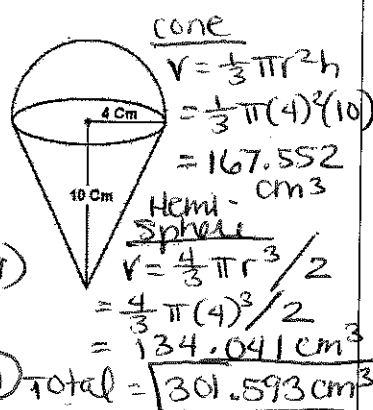
$$\frac{360}{360} \cdot 2\pi r$$

$$\frac{36}{360} \cdot 2\pi(9)$$

$$= \frac{9\pi}{5}$$

$$= 5.655 \text{ in}$$

Find the volume of the ice cream cone shown:



cone

$$V = \frac{1}{3}\pi r^2 h$$

$$= \frac{1}{3}\pi(4)^2(10)$$

$$= 167.552 \text{ cm}^3$$

Hemi-Sphere

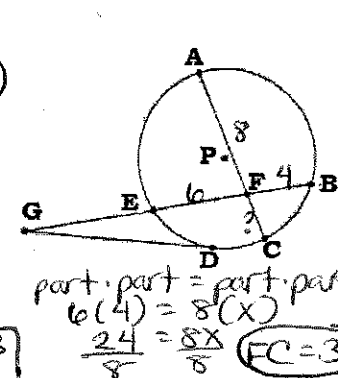
$$V = \frac{4}{3}\pi r^3 / 2$$

$$= \frac{4}{3}\pi(4)^3 / 2$$

$$= 134.041 \text{ cm}^3$$

total = 301.593 cm³

In Circle P, DG is a tangent. AF = 8, EF = 6, and BF = 4. Find the measure of FC.

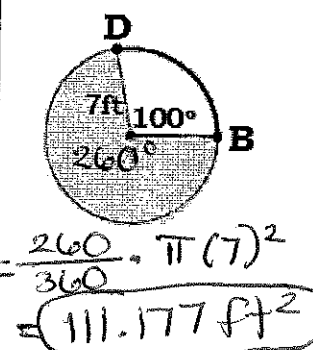


part-part = part-part

$$6(4) = 8(x)$$

$$\frac{24}{8} = \frac{8x}{8} \quad \text{FC} = 3$$

Find the Area of Shaded Sector.



$$\frac{260}{360} \cdot \pi(7)^2$$

$$= 111.177 \text{ ft}^2$$

UNIT 4

Simplify:

$$5\sqrt{8} + \sqrt{2}$$

$$5(2\sqrt{2}) + \sqrt{2}$$

$$10\sqrt{2} + \sqrt{2}$$

$$= 11\sqrt{2}$$

Simplify:

$$(5x + 7x^2) + (2x^2 + 4x - 5)$$

$$= 9x^2 + 9x - 5$$

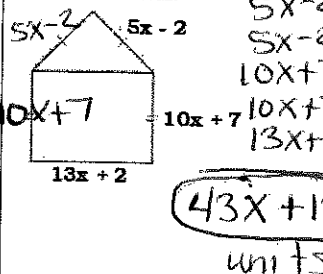
Simplify:

$$(5x + 7x^2) - (2x^2 + 4x - 5)$$

$$= 5x + 7x^2 - 2x^2 - 4x + 5$$

$$= 5x^2 + x + 5$$

Find the Perimeter of the model shown:



$$5x - 2 + 5x - 2 + 10x + 7 + 10x + 7 + 13x + 2$$

$$= 43x + 12$$

units