52)
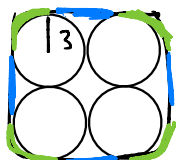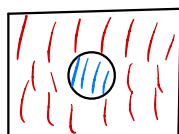

$$C = 2\pi r = 6\pi$$

$$4 \cdot d = 4 \cdot 6$$

1) Small components

2) As long as you know the concept, problem is solvable.

55) complement $\longrightarrow$

Red = complement

Shaded = whole triangle − unshaded

$$\underset{40}{\|}$$

unshaded = 28 squares

Shaded = 12

$$\frac{12}{28} = \frac{3}{7}$$

$$\cancel{\frac{12}{40}}$$

54) $\log_x 8 = y$ log form $y = ?$

$$\|$$

$$x^y = 8$$

(?) result

exponential form

$$\log_2 \underset{\text{base}}{8} = \underset{\text{(?) power}}{y} \longrightarrow \underset{\text{base}}{2}^{\overset{\text{power}}{y}} = \underset{\text{result}}{8} \implies y = 3$$

58) Law of cosines

$c^2 = a^2 + b^2 - 2ab\cos C$
$a^2 = b^2 + c^2 - 2bc\cos A$

$15^2 = \cdots\cdots\cdots \cos A$

$\cos(90°)$
$\overset{\shortparallel}{\cos}\left(\dfrac{\pi}{2}\right)$

(triangle with sides a 15, 16, 17 and angle A)
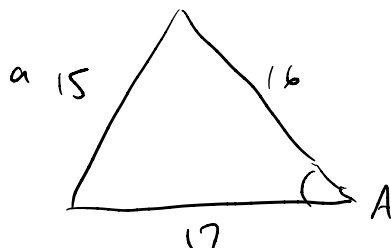
60) 16 cars, 6 minivans   7 sedans   3 hatchbacks

She choses 3,   P({ rents 1 of each type })

She already picked MV

P({ she also chooses sedan and then hatchback })

$\dfrac{7}{15} \cdot \dfrac{3}{14}$

$\underline{3} \qquad \underline{2} \qquad \underline{1} = 3!$
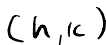
P((MV, S, HB))   S, HB, MV

$\dfrac{6}{16} \cdot \dfrac{7}{15} \cdot \dfrac{3}{14} \cdot 3!$ $\dfrac{7}{16} \cdot \dfrac{3}{15} \cdot \dfrac{6}{14}$

$= .225 \qquad = \dfrac{9}{40} \qquad \checkmark$
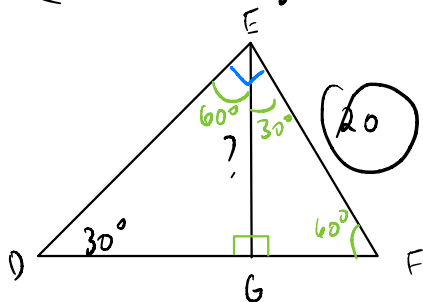
30)
Circle
equation

(h, k)
$(4, -3)$

$$\underset{\color{red}(1)}{(x - h)}^2 + \underset{\color{red}(1)}{(y - (c))}^2 = r^2 \;\;\color{red}(2)$$

Geometry
37)

E
60° 30°
?
30°   60°
D   G   F

20

$10\sqrt{3}$

30   2x
$x\sqrt{3}$
?   60°
x

30   2
$\sqrt{3}$
?   60°
1
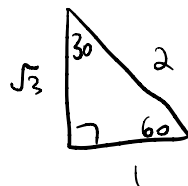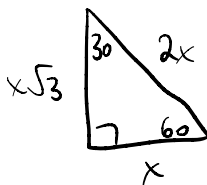
Geometry

1) When in doubt, just
   start filling in angles and
   sides
2) Estimate

34)   X $\cdot$ 1.06 $\cdot$ .94 =
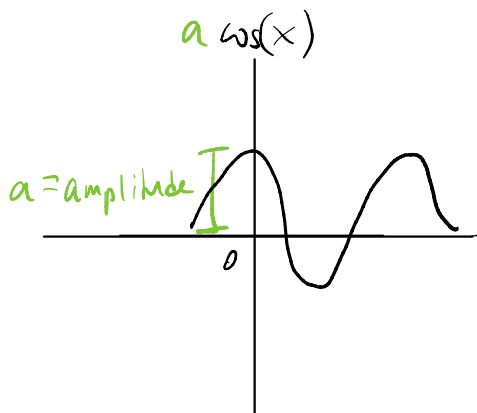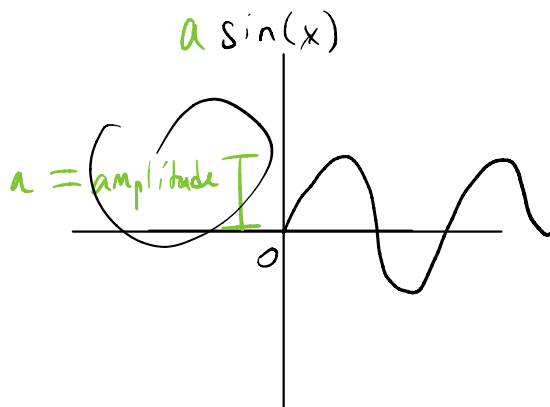
6% tax   un-sales tax

1.06x = 18.55 ,   x is price before
                                        tax

x = 18.55 / 1.06 = 17.5

17.5 - 2 -6 -3 -4 = $\boxed{2.5}$

Sine graph
amplitude
44)   G   3

a sin(x)

a = amplitude I
              0

a cos(x)

a = amplitude I
              0

general   y = a sin (bx + c) + d   4   parameters

          = a sin (b(x + $\frac{c}{b}$)) + d

protractor

39) $A = 36°$

$C = 90° - 36° = 54°$