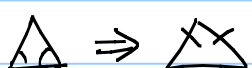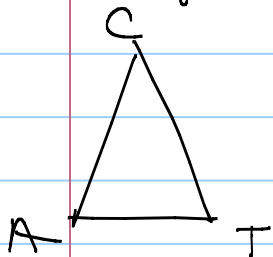$\cong$ $\triangle_s$

1. SSS   2. SAS } NEED TO PROVE
4. HL   3. ASA } $\cong \angle s$ before use.

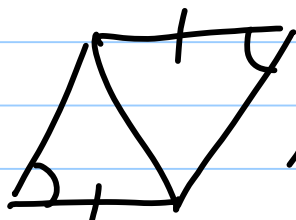No prs of $\cong \angle s \rightarrow$ HL, need rt $\angle s$ (not $\cong \angle s$) to state rt $\triangle$.

$\triangle \Rightarrow \triangle$ or $\triangle \Rightarrow \triangle$

If you say

C

A _____ T

1. $\angle A \cong \angle T$ ←

2. $\overline{CA} \cong \overline{CT}$ by $\triangle \Rightarrow \triangle$
   What needs to be first?

KNOWN $\Rightarrow$ ☐
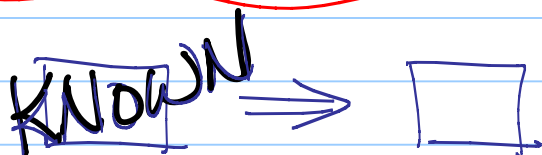
8 Reading marked diagrams
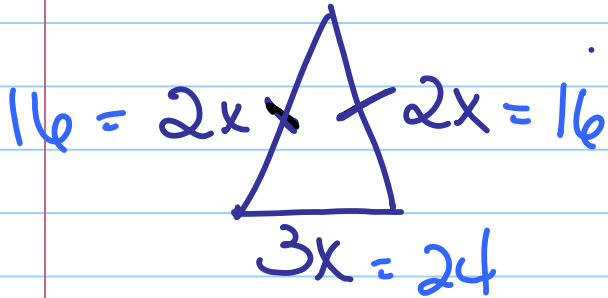
Yes, HL

No.
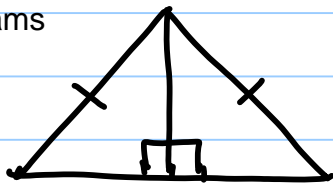
think → "x"

The ratio of the base of an isos △
to its legs is 3:2
The perimeter is 56.
Find the length of each side.

$16 = 2x$ $2x = 16$

$3x = 24$

Sum sides = perimeter
$$7x = 56$$
$$x = 8$$

$\triangle CAT \cong \triangle DOG$ $\angle C = 50$ & $\angle D = x - 32$
Find x.

$\angle C = \angle D$
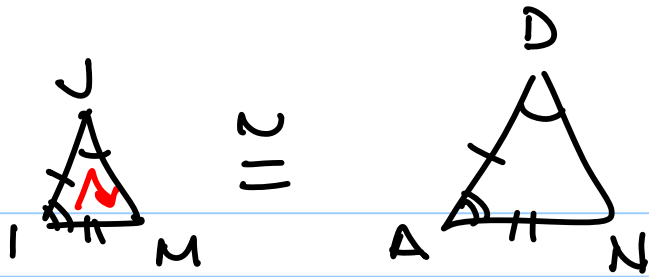$50 = x - 32$
$\boxed{82 = x}$

---

2 pages (front + back → 4 sides)

1 pg   calc

1 pg   no calc

ORDER MATTERS!

$\triangle JIM \cong \triangle DAN$

$\triangle IJM \cong \triangle ADN$

Classify by   sides   & $\angle s$

EQUILATERAL   ACUTE

SCALENE   RIGHT

ISOSCELES   OBTUSE

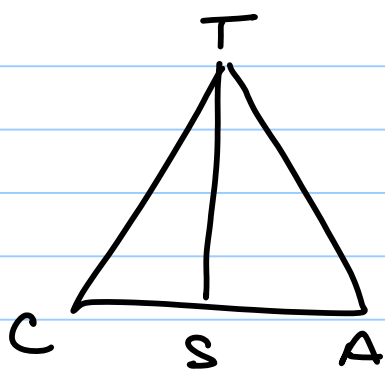---

⊙ $A = \pi r^2$

$C = \pi d$ or $C = 2r\pi$

Exact.
leave in
~~terms of π~~

$d = \frac{1}{2}$ find, $A = \frac{1}{16}\pi$ or $\frac{\pi}{16}$, $C = \frac{\pi}{2}$ or $\frac{1}{2}\pi$

exact

$r = \frac{1}{4}$

$d = 2r$

If $\boxed{\angle A = \angle C}$
IS TS a median

Is equation set up

```
       T
      /|\
     / | \
    /  |  \
   /   |   \
  /____|____\
 C     S     A
```

$\angle A = \angle C$ $TC = TA$ or $CS = SA$

Given $(\triangle \Rightarrow \triangle)$ WRONG
ASSUMING
What you need to
Correct   show. $(1/5)$

9 Given: $\overline{RK} \perp \overline{HR}$,
$\overline{JO} \perp \overline{PM}$,
$\overline{PH} \cong \overline{PM}$,
$\overline{PR} \cong \overline{PO}$

Conclusion: $\overline{RK} \cong \overline{JO}$

SSS
SAS
ASA
HL
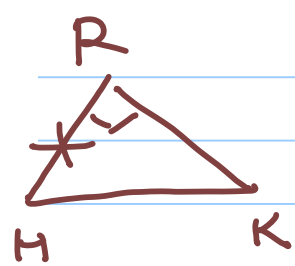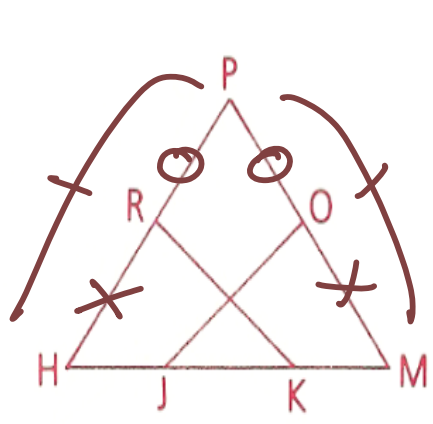
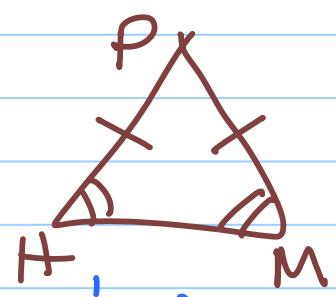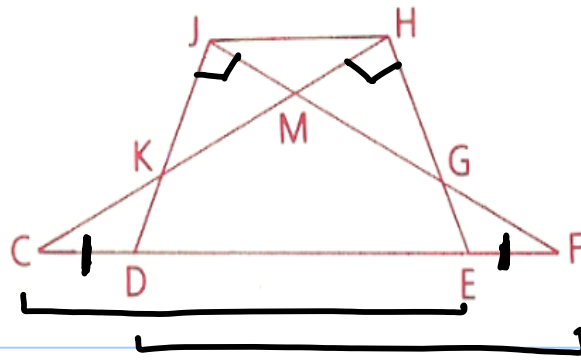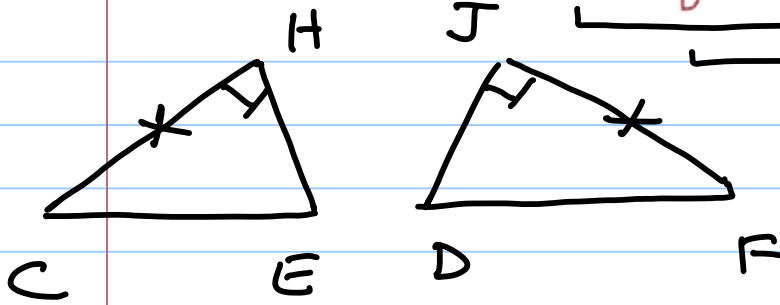|	Statements	Reasons
	1. $\overline{RK} \perp \overline{HR}$ & $\overline{JO} \perp \overline{PM}$	1. GIVEN
	2. $\angle HRK$ & $\angle MOJ$ rt $\angle$	2. $\perp \Rightarrow$ RT $\angle$S
A	3. $\angle HRK \cong \angle MOJ$	3. RT $\angle$S $\Rightarrow \cong \angle$S
	4. $\overline{PH} \cong \overline{PM}$	4. GIVEN
	5. $\overline{PR} \cong \overline{PO}$	5. Given
S	6. $\overline{RH} \cong \overline{OM}$	6. SUBTRACT (4 & 5)
A	7. $\angle H \cong \angle M$	7. $\triangle \Rightarrow \triangle$ (4)
	8. $\triangle RHK \cong \triangle OMJ$	8. ASA (3 6 7)
	9. $\overline{RK} \cong \overline{JO}$	10. CPCTC (8)

12 Given: $\overline{CD} \cong \overline{EF}$,
$\overline{JF} \perp \overline{JD}$,
$\overline{CH} \perp \overline{HE}$,
$\overline{CH} \cong \overline{JF}$

Prove: $\overline{JD} \cong \overline{HE}$

SSS
SAS
ASA
(HL)

1. $\overline{JF} \perp \overline{JD}$ & $\overline{CH} \perp \overline{HE}$ 1. Given
2. $\angle CHE$ & $\angle FJD$ rt $\angle s$ 2. $\perp \Rightarrow$ rt $\angle s$ (1)

3. $\overline{CD} \cong \overline{EF}$ 3. Given
*4. $\overline{DE} \cong \overline{DE}$ 4. Ref
5. $\overline{CE} \cong \overline{DF}$ 5. Add (3 & 4)

6. $\overline{CH} \cong \overline{FJ}$ 6. Given

7. $\triangle CHE \cong \triangle FJD$ 7. HL (2, 5, 6)

8. $\overline{JD} \cong \overline{HE}$ 8. CPCTC (7)