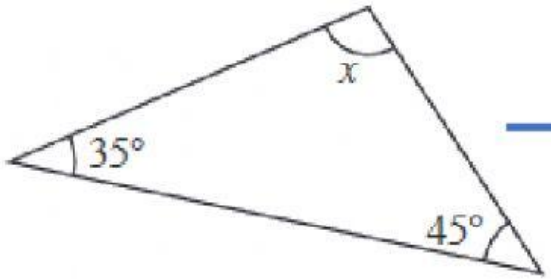
NAME: _____ CLASS: _____ DATE: _____

TRIANGLES AND THEIR ANGLE PROPERTIES

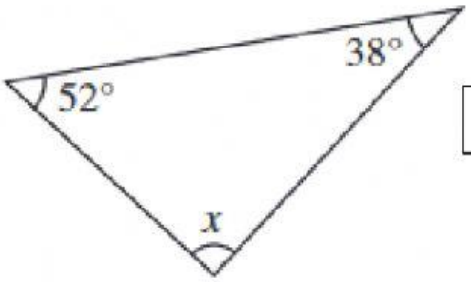
QUESTION 1

(a)



Example:
(a) To find $\angle x$:
$\angle x = 180 - 35 - 45$
$= 101°$

(b)

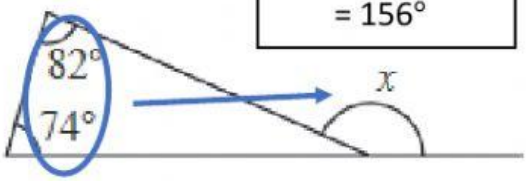


(b) $\angle x =$ _____°

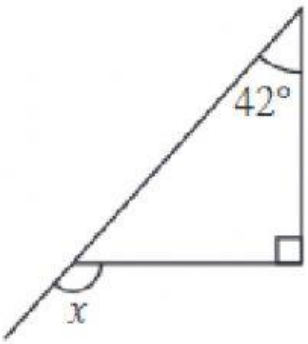
Example
(c) To find $\angle x$:
$\angle x = 82 + 74$
$= 156°$

(c)

(c)

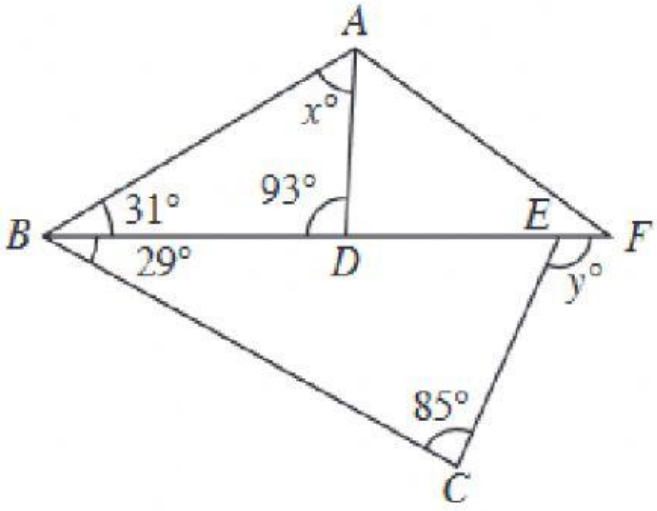


(d)



(d) $\angle x =$ _____°

QUESTION 2



ANSWER:

$\angle x$ = _____°

$\angle y$ = _____°

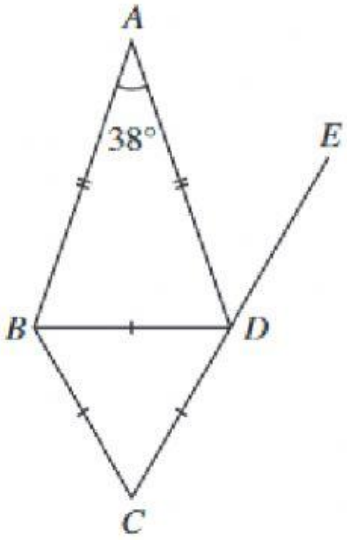
QUESTION 3

In the diagram, CDE is a straight line. The equal sides are indicated. It is given that $\angle BAD = 38°$. Find

(a) $\angle ADB$,

(b) $\angle ADE$,

(c) reflex $\angle ABC$.



ANSWER:

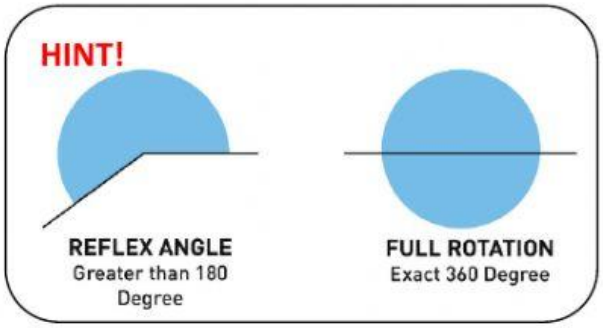
(a) $\angle ADB$ = _____°

ANSWER:

(b) $\angle ADE$ = _____°

ANSWER:

(c) reflex $\angle ABC$ = _____°

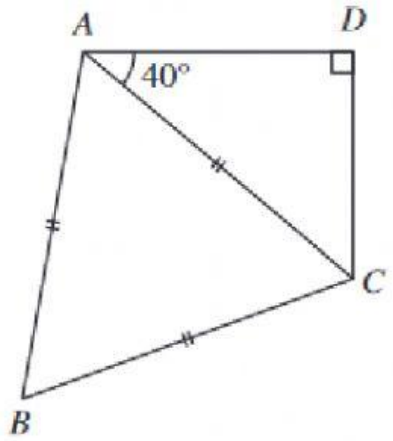


QUESTION 4

In the diagram, $\triangle ABC$ is an equilateral triangle and $\triangle ADC$ is a right-angled triangle. It is given that $\angle CAD = 40°$.
Find

(a) $\angle BCD$,

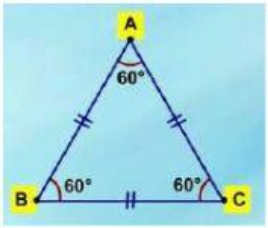
(b) Reflex $\angle BAD$.



ANSWER:
(a) $\angle BCD$ = _____°

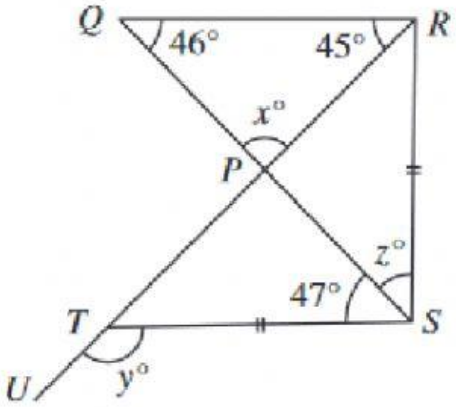
ANSWER:
(b) reflex $\angle BAD$ = _____°

HINT!



QUESTION 5* (challenging)

In the diagram, QPS and $RPTU$ are straight lines, and $SR = ST$.
Find the values of $\angle x$, $\angle y$ and $\angle z$.



ANSWER:
$\angle x$ = _____°

ANSWER:
$\angle y$ = _____°

ANSWER:
$\angle z$ = _____°

HINT!