Math on the Fly!
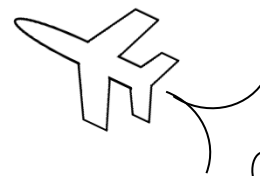
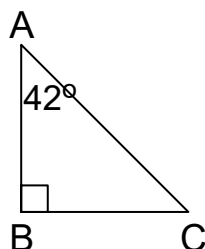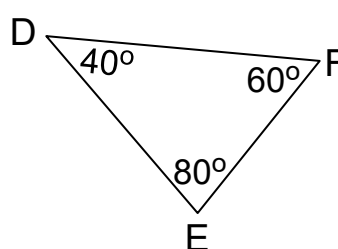## Ordering Sides and Angles of Triangles

For each triangle, list the lengths of the sides from least to greatest.

1.

A
$42°$
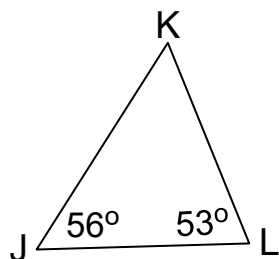B   C

2.

D
$40°$ $60°$ F
$80°$
E

3.

K
$56°$ $53°$
J   L

4.

Q $(5x - 10)°$
$(3x + 30)°$ $(6x - 50)°$
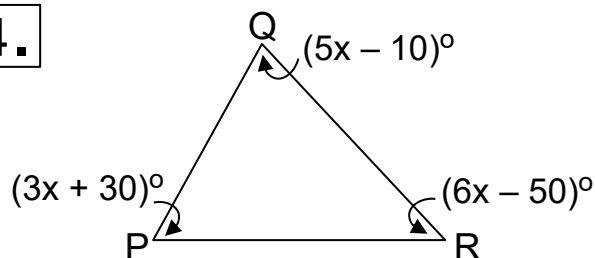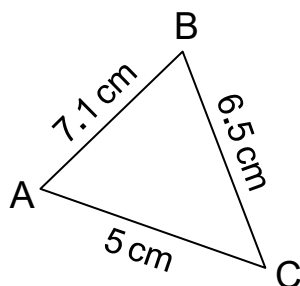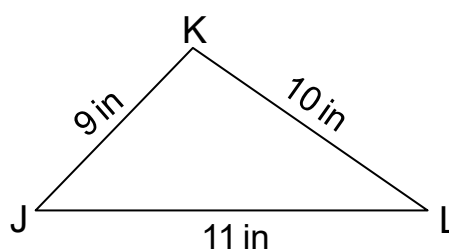P   R

For each triangle, list the measures of the angles from least to greatest.
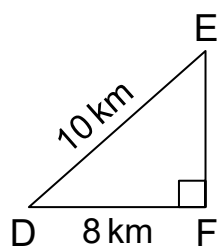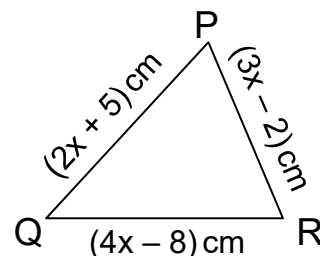
5.

B
7.1 cm   6.5 cm
A
5 cm
C

6.

K
9 in   10 in
J   L
11 in

7.

E
10 km
D   8 km   F

8.

P
$(2x + 5)$ cm $(3x - 2)$ cm   Perimeter = 40 cm
Q $(4x - 8)$ cm   R

SOLUTIONS

1. ∠A = 42º, ∠C = 48º, ∠B = 90º

Order: $\overline{BC}$, $\overline{AB}$, $\overline{AC}$

2. ∠D = 40º, ∠F = 60º, ∠E = 80º

Order: $\overline{EF}$, $\overline{DE}$, $\overline{DF}$

3. ∠L = 53º, ∠J = 56º, ∠K = 71º

Order: $\overline{JK}$, $\overline{KL}$, $\overline{JL}$

4. The angles add up to 180º, x = 15

∠R = 40º, ∠Q = 65º, ∠P = 75º

Order: $\overline{PQ}$, $\overline{PR}$, $\overline{QR}$

5. $\overline{AC}$ = 5, $\overline{BC}$ = 6.5, $\overline{AB}$ = 7.1

Order: ∠B, ∠A, ∠C

6. $\overline{JK}$ = 9, $\overline{KL}$ = 10, $\overline{JL}$ = 11

Order: ∠L, ∠J, ∠K

7. $\overline{EF}$ = 6, $\overline{DF}$ = 8, $\overline{DE}$ = 10

(Use the Pythagorean Theorem to get $\overline{EF}$)

Order: ∠D, ∠E, ∠F

8. The sides add up to 40cm, x = 5

$\overline{QR}$ = 12, $\overline{PR}$ = 13, $\overline{PQ}$ = 15

Order: ∠P, ∠Q, ∠R