5.3 Homework Worksheet   Calculate the measure of each of the unknowns. Justify your answers.

a)

b)

c)

d)

e)

f)

g) $AB = AC$

h)

i)

j)

k)

l)

m)
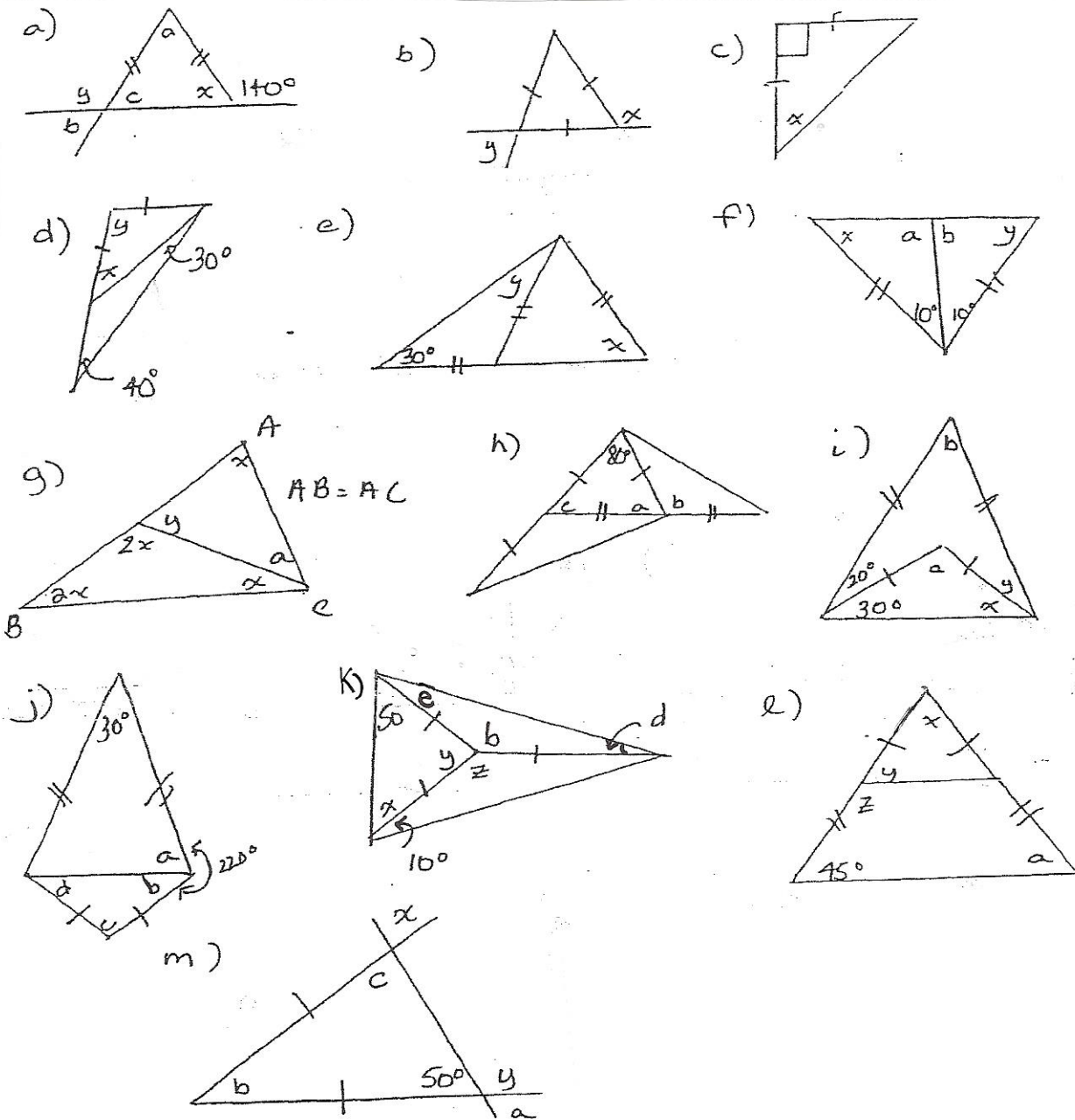
SOLUTIONS:

a) $x = 40°$
   $c = 40°$
   $a = 100°$
   $b = 40°$
   $y = 140°$

b) $y = 60°$
   $x = 120°$

c) $x = 45°$

d) $x = 70°$
   $y = 40°$

e) $y = 30°$
   $x = 60°$

f) $x = 80°$
   $y = 80°$
   $a = 90°$
   $b = 90°$

g) $x = 36°$
   $a = 36°$
   $y = 108°$

h) $c = 50°$
   $b = 130°$

i) $x = 30°$
   $y = 20°$
   $a = 120°$
   $b = 80°$

j) $a = 75°$
   $d = 65°$
   $b = 65°$
   $c = 50°$

k) $d = 30°$
   $x = 50°$
   $y = 80°$
   $z = 160°$
   $b = 120°$
   $e = 30°$

l) $a = 46°$
   $x = 90°$
   $y = 45°$
   $z = 135°$

m) $a = 50°$
   $y = 130°$
   $c = 50°$
   $b = 80°$
   $x = 50°$