Name: _____ Date: _____

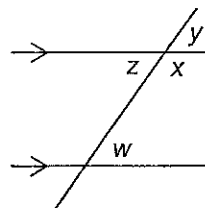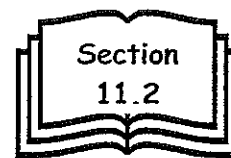# Practise: Angles and Parallel Lines

In this diagram,
- the diagonal line is a _____
- ___ and ___ are equal because they are opposite angles (X pattern)
- ___ and ___ are equal because they are corresponding angles (F pattern)
- ___ and ___ are equal because they are alternate angles (Z pattern)
- ___ and ___ add to _____° because they are co-interior angles (C pattern)

Find the measure of each angle marked with a letter in these diagrams.
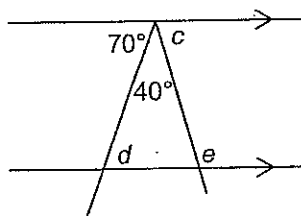List the angle relationship for each calculation.

a)

$a =$ Reason:

$b =$ Reason:
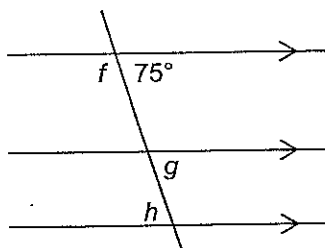
60°, a, b

b)

70°, c
40°
d, e
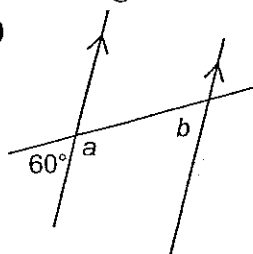
$c =$ Reason:

$d =$ Reason:

$e =$ Reason:

c)

f, 75°
g
h

$f =$ Reason:

$g =$ Reason:

$h =$ Reason:
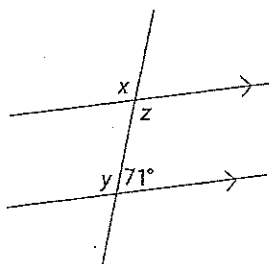
d)

x
z
y, 71°

$x =$ Reason

$y =$ Reason

$z =$ Reason

e)

x =   Reason

y =   Reason

z =   Reason

97°
y
z
x

f)
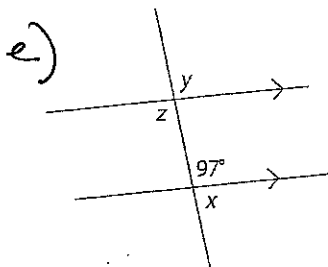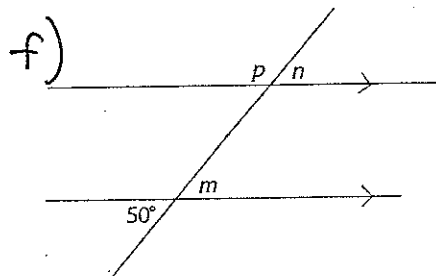
m =   Reason

n =   Reason:

p =   Reason

p n
m
50°

g)

f =   Reason

f
117

h)

p =   Reason

65°
p

Answers: a) a = 120°   c) f = 105°   e) x = 83°   g) f = 117°
               b = 60°   g = 75°   y = 97°
                                 h = 75°   z = 97°
          b) c = 70°   h) p = 115°
             d = 70°   d) x = 109°   f) m = 50°
             e = 110°   y = 109°   n = 50°
                                 z = 109°   p = 130°