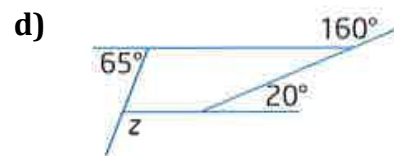
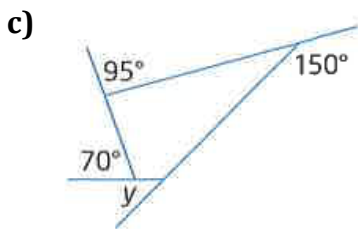
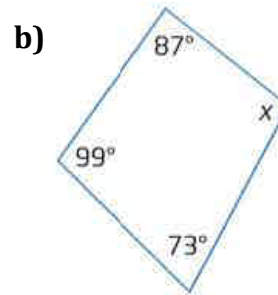
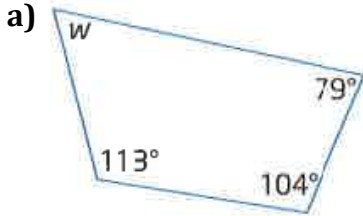


7.2 Angle Relationships in Quadrilaterals - Worksheet

MPM1D

Jensen

1. Find the angle measures w , x , y , and z .



2. The measures of three of the interior angles of a quadrilateral are 40° , 90° , and 120° . The measure of the fourth interior angle is:

A) 110°

B) 130°

C) 210°

D) 250°

3. The measures of exterior angles at three vertices of a quadrilateral are 80° , 100° , and 120° . The measure of an exterior angle at the fourth vertex is:

A) 40°

B) 60°

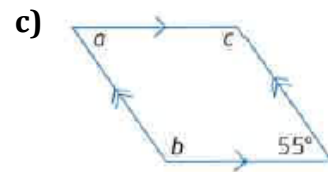
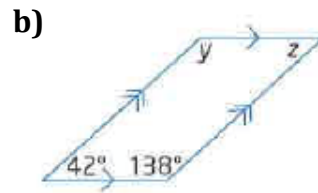
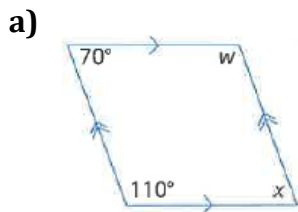
C) 100°

D) 140°

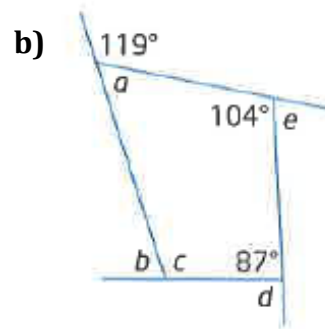
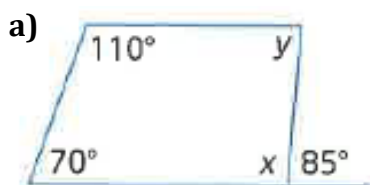
4. Each row of this table lists measures of three interior angles in a quadrilateral. Find the measure of the fourth interior angle in each quadrilateral.

	$\angle A$	$\angle B$	$\angle C$	$\angle D$
a)	100°	75°	50°	unknown
b)	20°	35°	unknown	150°
c)	70°	unknown	70°	70°
d)	unknown	90°	90°	90°

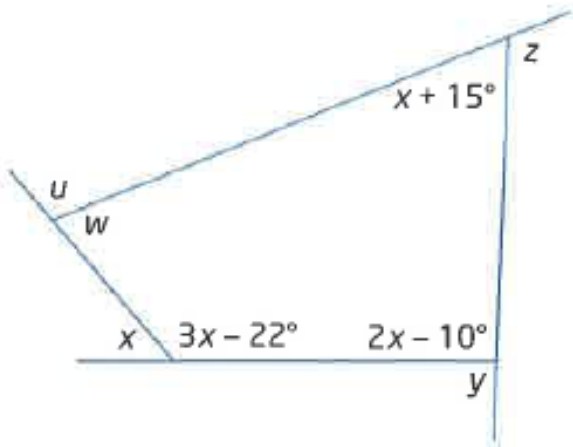
5. Find the measure of each unknown angle



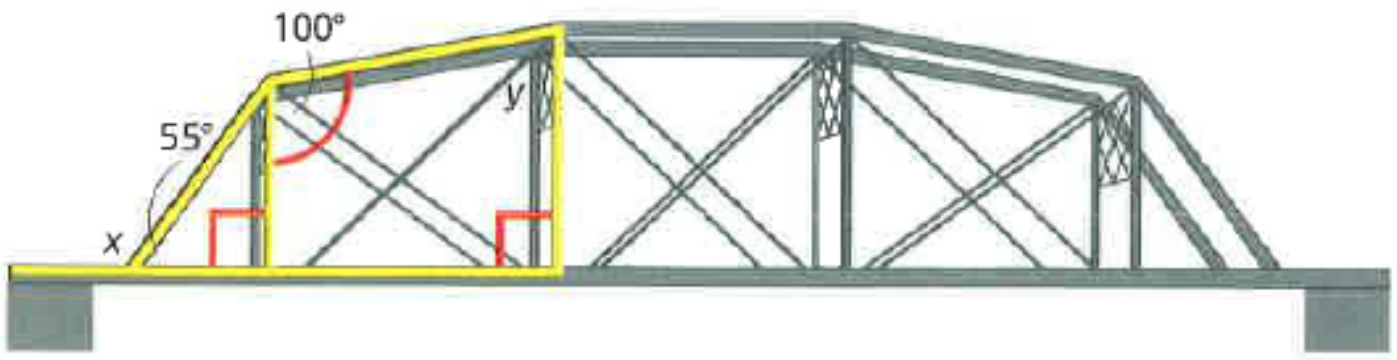
7. Find the measure of each unknown angle



13. Find the measure of each unknown angle



12. This diagram shows the structure of a bridge over the river between Ottawa and Gatineau.



a) Calculate the measure of the exterior angle between the road and the foot of the triangle at the left end of the bridge.

b) Calculate the angle at the upper right corner of the quadrilateral on the left side of the bridge.

Answers

1) a) 64° b) 101° c) 45° d) 115°

2) A

3) B

4) a) 135° b) 155° c) 150° d) 90°

5) a) $w = 110^\circ, x = 70^\circ$ b) $y = 138^\circ, z = 42^\circ$ c) $a = 55^\circ, b = 125^\circ, c = 125^\circ$

7) a) $x = 95^\circ, y = 85^\circ$ b) $a = 61^\circ, b = 72^\circ, c = 108^\circ, d = 93^\circ, e = 76^\circ$

13) $u = 106^\circ, w = 74^\circ, x = 50.5^\circ, y = 89^\circ, z = 114.5^\circ$

12) a) 125° b) 80°