


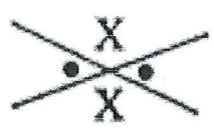

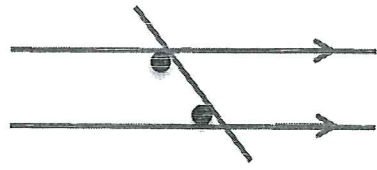

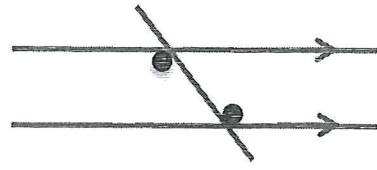


Unit 2 – Geometry – Practice Test

Key

1)		D	<p>a) Complementary Angles add to 90 b) Supplementary Angles add to 180 c) Angles on a Line add to 180 d) Angles at a Point add to 360 e) Vertically Opposite angles are equal</p>
2)		A	
3)		C	
4)		E	
5)		B	

If you get these right it kinda helps with the rest of the test!

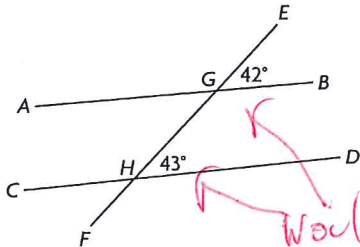
6)		E	<p>a) Corresponding Angles are equal b) Alternate Interior Angles are equal c) Alternate Interior Angles add to 180 d) Co-Interior Angles are equal e) Co-Interior Angles add to 180</p>
7)		A	
8)		B	

Multiple Choice

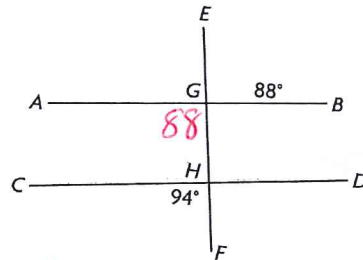
Identify the choice that best completes the statement or answers the question.

1. In which diagram(s) is AB parallel to CD ?

1.



2.



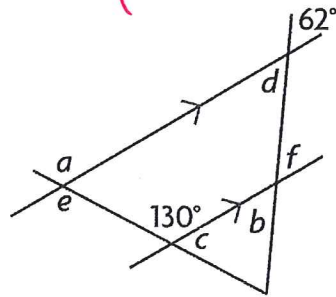
Would have to be the same!

- A. Choice 1 only
- B. Choice 2 only
- C. Choice 1 and Choice 2
- D. Neither Choice 1 nor Choice 2

C

2. Which statement about the angles in this diagram is false?

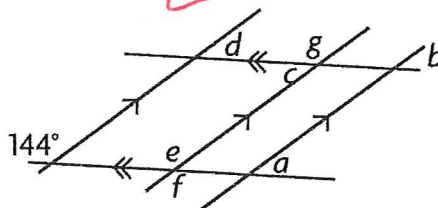
(boxed)



- A. $\angle a = \angle e$ ✓
- B. $\angle c = \angle e$
- C. $\angle d = \angle b$ ✓
- D. $\angle b = \angle f$ ✓

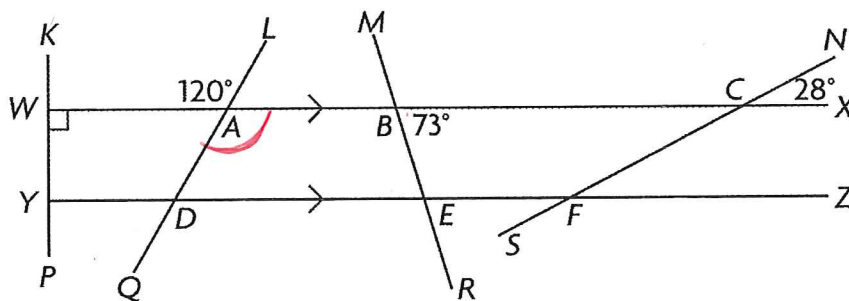
B

3. Which statement about the angles in this diagram is false?



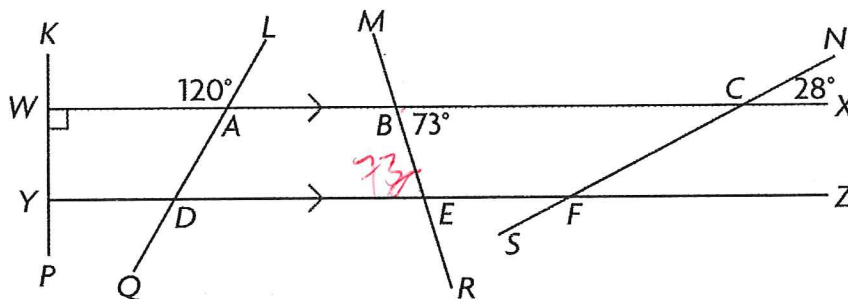
- A. $\angle e + \angle a = 180^\circ$ ✓
- B. $\angle d + \angle g = 180^\circ$ ✓
- C. $\angle b + \angle d = 180^\circ$ $b = d$
- D. $\angle f + \angle c = 180^\circ$ ✓

4. Which angle property proves $\angle DAB = 120^\circ$?



- A. vertically opposite angles
- B. alternate exterior angles
- C. alternate interior angles
- D. corresponding angles

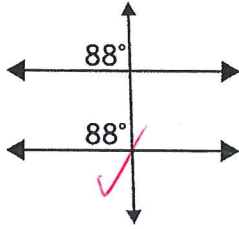
5. Which angle property proves $\angle BED = 73^\circ$?



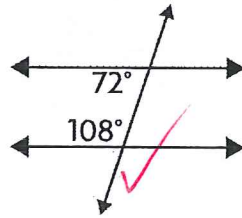
- A. alternate interior angles
- B. vertically opposite angles
- C. corresponding angles
- D. alternate exterior angles

6. In which diagrams are two lines parallel?

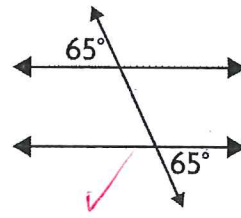
1.



2.

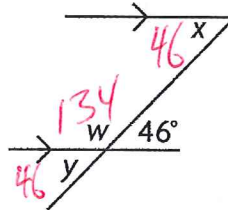


3.



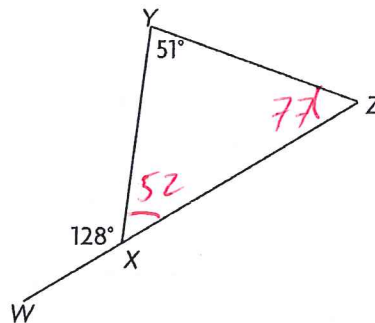
- A. Choice 2 and Choice 3
- B. Choice 1 only
- C. Choice 1 and Choice 3
- D. Choices 1, 2, and 3

7. Which are the correct measures of the indicated angles?



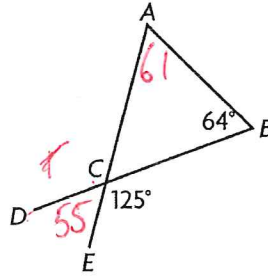
- A. $\angle w = 146^\circ$, $\angle x = 44^\circ$, $\angle y = 146^\circ$
- B. $\angle w = 134^\circ$, $\angle x = 46^\circ$, $\angle y = 46^\circ$
- C. $\angle w = 136^\circ$, $\angle x = 44^\circ$, $\angle y = 136^\circ$
- D. $\angle w = 116^\circ$, $\angle x = 64^\circ$, $\angle y = 64^\circ$

8. Which are the correct measures for $\angle YXZ$ and $\angle XZY$?



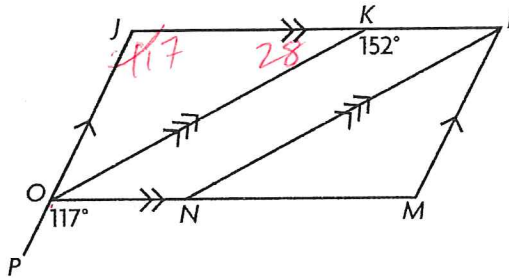
- A. $\angle YXZ = 52^\circ$, $\angle XZY = 77^\circ$
- B. $\angle YXZ = 52^\circ$, $\angle XZY = 87^\circ$
- C. $\angle YXZ = 62^\circ$, $\angle XZY = 77^\circ$
- D. $\angle YXZ = 62^\circ$, $\angle XZY = 87^\circ$

9. Which are the correct measures for $\angle DCE$ and $\angle CAB$?



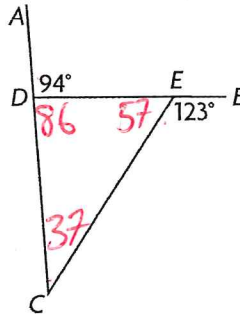
- A. $\angle DCE = 75^\circ, \angle CAB = 55^\circ$
- B. $\angle DCE = 65^\circ, \angle CAB = 50^\circ$
- C. $\angle DCE = 75^\circ, \angle CAB = 66^\circ$
- D. $\angle DCE = 55^\circ, \angle CAB = 61^\circ$

10. Which are the correct measures for $\angle OJK, \angle JKO,$ and $\angle JOK$?



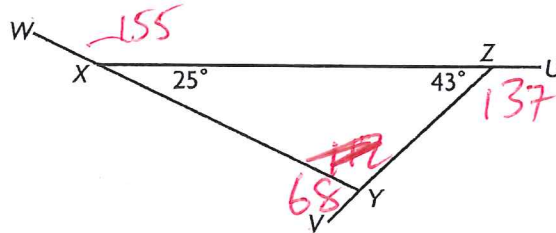
- A. $\angle OJK = 102^\circ, \angle JKO = 28^\circ,$ and $\angle JOK = 50^\circ$
- B. $\angle OJK = 152^\circ, \angle JKO = 18^\circ,$ and $\angle JOK = 10^\circ$
- C. $\angle OJK = 117^\circ, \angle JKO = 28^\circ,$ and $\angle JOK = 35^\circ$
- D. $\angle OJK = 117^\circ, \angle JKO = 36^\circ,$ and $\angle JOK = 37^\circ$

11. Which are the correct measures of the interior angles of $\triangle CDE$?



- A. $\angle DCE = 37^\circ, \angle CDE = 86^\circ,$ and $\angle CED = 57^\circ$
- B. $\angle DCE = 57^\circ, \angle CDE = 86^\circ,$ and $\angle CED = 37^\circ$
- C. $\angle DCE = 48^\circ, \angle CDE = 75^\circ,$ and $\angle CED = 57^\circ$
- D. $\angle DCE = 37^\circ, \angle CDE = 68^\circ,$ and $\angle CED = 75^\circ$

12. Which are the correct measures for $\angle WXZ$, $\angle UZY$, and $\angle VYX$?



- A. $\angle WXZ = 155^\circ$, $\angle UZY = 137^\circ$, and $\angle VYX = 68^\circ$
 B. $\angle WXZ = 165^\circ$, $\angle UZY = 137^\circ$, and $\angle VYX = 66^\circ$
 C. $\angle WXZ = 165^\circ$, $\angle UZY = 127^\circ$, and $\angle VYX = 88^\circ$
 D. $\angle WXZ = 155^\circ$, $\angle UZY = 127^\circ$, and $\angle VYX = 86^\circ$

13. Determine the sum of the measures of the angles in a 16-sided convex polygon.

- A. 2700°
 B. 2520°
 C. 2340°
 D. 2880°

$$180(14) =$$

14. Determine the sum of the measures of the angles in a 9-sided convex polygon.

- A. 1720°
 B. 1440°
 C. 1080°
 D. 1260°

$$180(7) =$$

15. Each interior angle of a regular convex polygon measures 162° . How many sides does the polygon have?

- A. 16
 B. 19
 C. 18
 D. 20

$$\frac{180(n-2)}{n} = 162$$

$$180(n-2) = 162n$$

$$180n - 360 = 162n$$

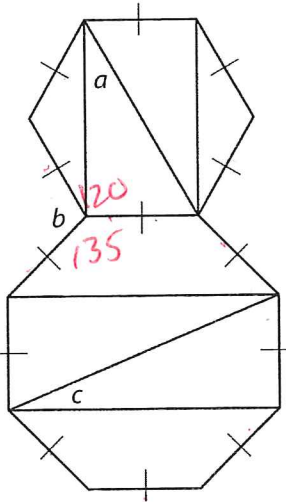
$$18n = 360$$

$$n = 20$$

OR
 GUESS
 +
 CHECK!

16. Determine the value of b .

- A. 144°
- B. 154°
- C. 126°
- D. 105°

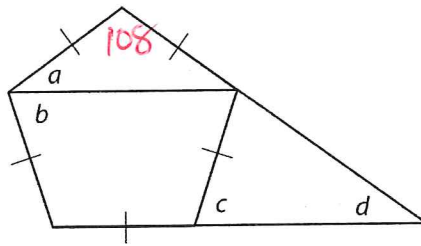


$$\frac{180(6-2)}{6} = 120^\circ$$

$$\frac{180(8-2)}{8} = 135^\circ$$

17. Determine the value of a .

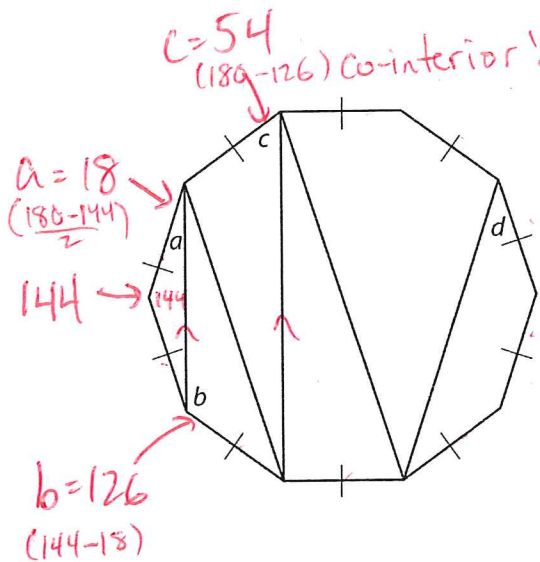
- A. 34°
- B. 30°
- C. 36°
- D. 32°



$$\frac{180(5-2)}{5} = 108$$

18. Determine the value of c .

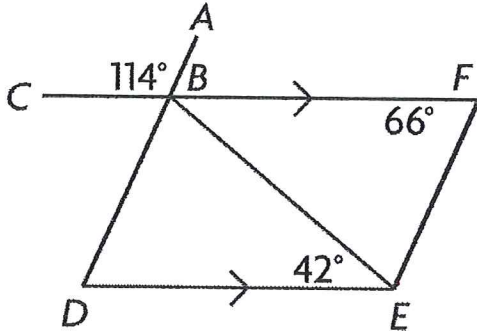
- A. 72°
- B. 54°
- C. 48°
- D. 45°



$$\frac{180(10-2)}{10} = 144$$

Written Questions:

1. Find the angles and give a reason: (3 marks)



Angle EBF = 42°

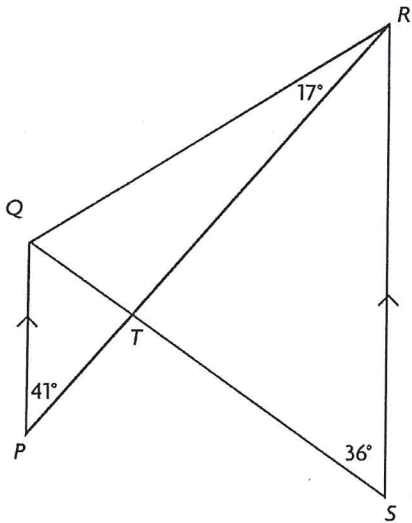
Angle BEF = 72°

Angle BDE = 66°

alternate interior
triangle

corresponding / supplementary

2. Find the angles and give a reason (4 marks)



Angle PQS = 36°

Angle PTQ = 103°

Angle QTR = 77°

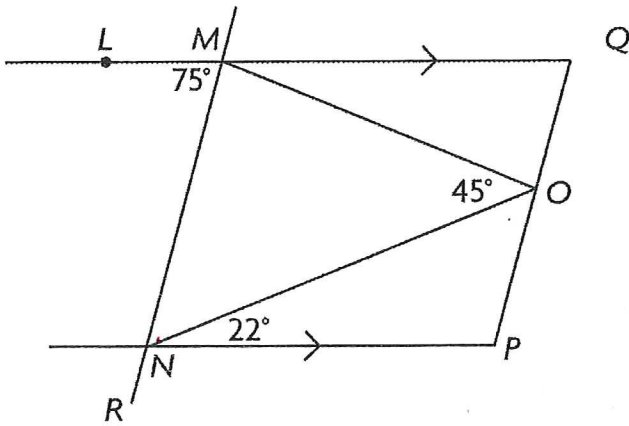
Angle TQR = 86°

alternate interior
triangle

supplementary

triangle

3. Find the angles and give a reason (3 marks)



Angle MNO = 53°

Angle RMQ = 105°

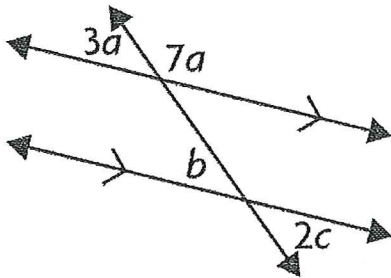
Angle OMQ = 23°

alternate interior - 22

supplementary

triangle / on a line

4. BONUS: Determine the values of a , b , and c . Show your work



$3a + 7a = 180$

$10a = 180$

$a = 18$

$3a = b$

$3(18) = b$

$54 = b$

$b = 2c$

$54 = 2c$

$27 = c$

5. The interior angles of a regular convex polygon add to 2340° . (2 marks)

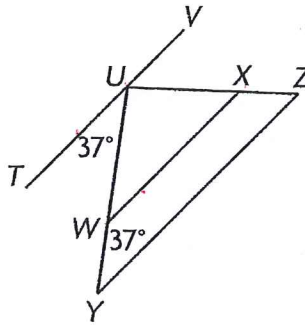
How many sides does the polygon have?

$180(n-2) = 2340$

$n = 15$

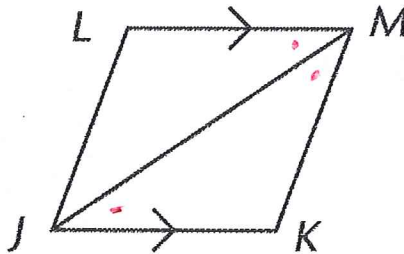
Problems (Choose TWO of the following questions to prove)

1. Given $\angle UWX = \angle WYZ$, prove: $TV \parallel WX$



Statement	Reason
$\angle UWX = \angle WYZ = 37^\circ$	given
$\angle TUW = \angle UWX$	both = 37°
$TV \parallel WX$	alternate interior
QED	

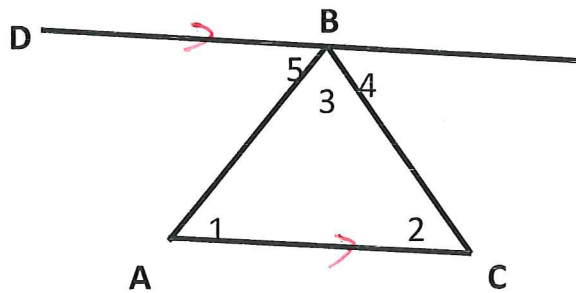
2. Given $LM \parallel JK$ and $\angle LMJ = \angle KMJ$, prove $JK = KM$.



Statement	Reason
$\angle LMJ = \angle KMJ$	given
$\angle LMJ = \angle MJK$	alternate interior
$\angle KMJ = \angle MJK$	both = $\angle LMJ$
$JK = KM$	isosceles triangle
QED	

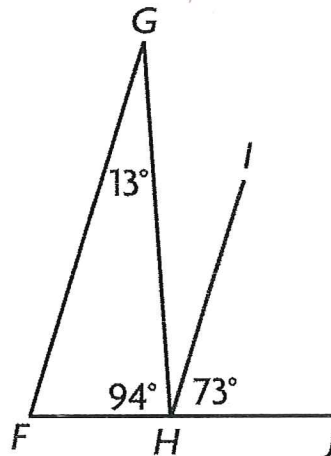
3. Given that DB is parallel to AC, prove that the sum of the three interior angles of a triangle is 180°.

can't assume!



Statement	Reason
$5 + 3 + 4 = 180$	on a line
$1 + 2 + 3 = 180$	triangle
$1 + 2 + 3 = 5 + 3 + 4$	both = 180
$1 = 5, 2 = 4$	alternate interior
$1 + 3 + 2 = 180$	substitution

4. Prove: $FG \parallel HI$



Statement	Reason
$\angle GHI = 13^\circ$	on a line
$FG \parallel HI$	alternate interior
	QED

OR

$$\angle GFH = 73^\circ$$

$$FG \parallel HI$$

triangle

corresponding
QED

