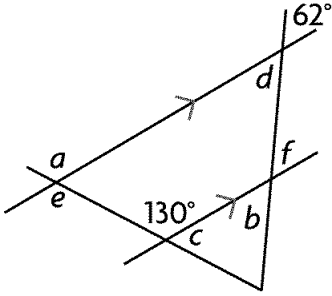


# Foundations 20 Final Review: Chapter 2

## Multiple Choice

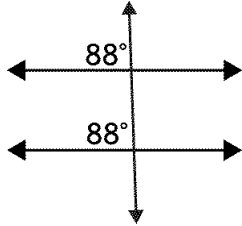
\_\_\_ 1. Which statement about the angles in this diagram is false?



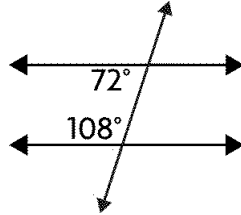
- a.  $\angle a = \angle e$
- b.  $\angle c = \angle e$
- c.  $\angle d = \angle b$
- d.  $\angle b = \angle f$

\_\_\_ 2. In which diagrams are two lines parallel?

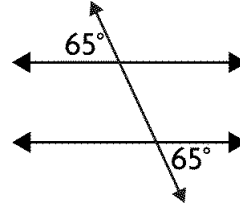
1.



2.

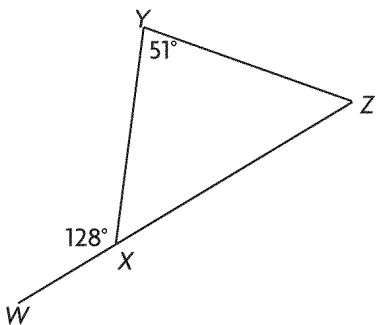


3.



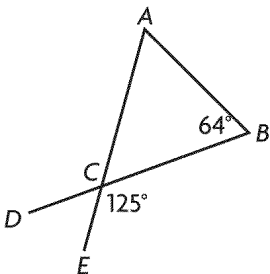
- a. Choice 2 and Choice 3
- b. Choice 1 only
- c. Choice 1 and Choice 3
- d. Choices 1, 2, and 3

\_\_\_ 3. Which are the correct measures for  $\angle YXZ$  and  $\angle XZY$ ?



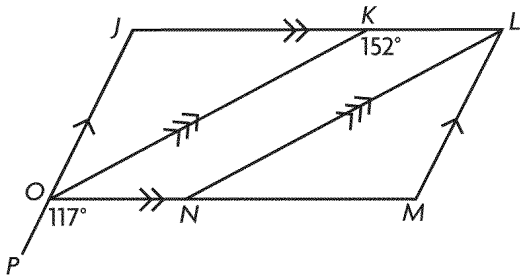
- a.  $\angle YXZ = 52^\circ$ ,  $\angle XZY = 77^\circ$
- b.  $\angle YXZ = 52^\circ$ ,  $\angle XZY = 87^\circ$
- c.  $\angle YXZ = 62^\circ$ ,  $\angle XZY = 77^\circ$
- d.  $\angle YXZ = 62^\circ$ ,  $\angle XZY = 87^\circ$

\_\_\_ 4. Which are the correct measures for  $\angle DCE$  and  $\angle CAB$ ?



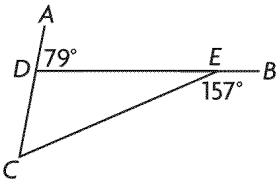
- a.  $\angle DCE = 75^\circ$ ,  $\angle CAB = 55^\circ$
- b.  $\angle DCE = 65^\circ$ ,  $\angle CAB = 50^\circ$
- c.  $\angle DCE = 75^\circ$ ,  $\angle CAB = 66^\circ$
- d.  $\angle DCE = 55^\circ$ ,  $\angle CAB = 61^\circ$

\_\_\_ 5. Which are the correct measures for  $\angle NOK$  and  $\angle JON$ ?



- a.  $\angle NOK = 38^\circ$ ,  $\angle JON = 35^\circ$
- b.  $\angle NOK = 28^\circ$ ,  $\angle JON = 63^\circ$
- c.  $\angle NOK = 35^\circ$ ,  $\angle JON = 36^\circ$
- d.  $\angle NOK = 35^\circ$ ,  $\angle JON = 82^\circ$

\_\_\_ 6. Which are the correct measures of the interior angles of  $\triangle CDE$ ?



- a.  $\angle DCE = 46^\circ$ ,  $\angle CDE = 101^\circ$ , and  $\angle CED = 33^\circ$
- b.  $\angle DCE = 32^\circ$ ,  $\angle CDE = 83^\circ$ , and  $\angle CED = 65^\circ$
- c.  $\angle DCE = 76^\circ$ ,  $\angle CDE = 91^\circ$ , and  $\angle CED = 13^\circ$
- d.  $\angle DCE = 56^\circ$ ,  $\angle CDE = 101^\circ$ , and  $\angle CED = 23^\circ$

\_\_\_ 7. Determine the sum of the measures of the angles in a 16-sided convex polygon.

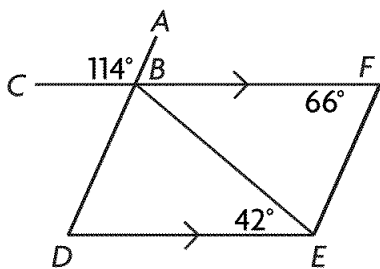
- a.  $2700^\circ$
- b.  $2520^\circ$
- c.  $2340^\circ$
- d.  $2880^\circ$

\_\_\_ 8. Each interior angle of a regular convex polygon measures  $162^\circ$ . How many sides does the polygon have?

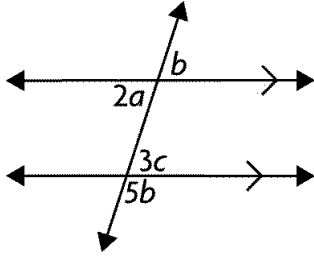
- a. 16
- b. 19
- c. 18
- d. 20

**Short Answer**

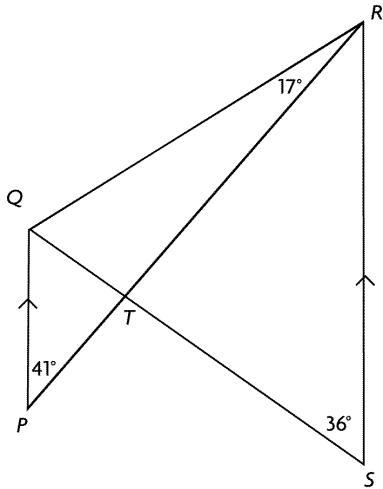
9. Determine the measure of  $\angle BDE$ .



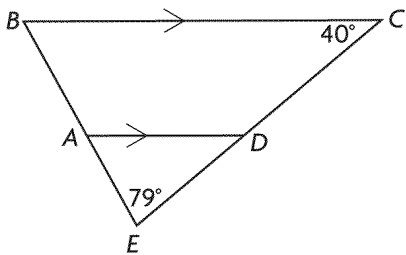
10. Determine the values of  $a$ ,  $b$ , and  $c$ .



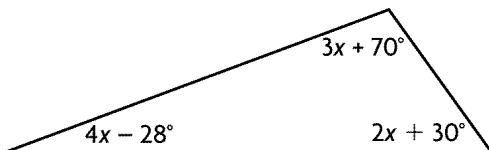
11. Determine the measure of  $\angle PTQ$ .



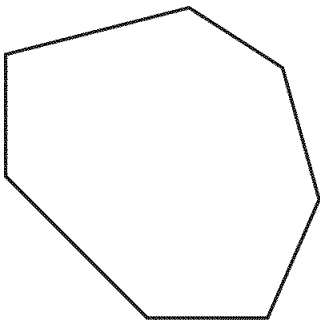
12. Determine the unknown angles.



13. Determine the value of  $x$ .



14. Determine the sum of the measures of the interior angles of this seven-sided polygon.  
Show your calculation.



15. Abbie is measuring the exterior angles of a convex pentagon.  
So far, she has measured  $90^\circ$ ,  $90^\circ$ ,  $120^\circ$ , and  $40^\circ$ .  
What is the measure of the last exterior angle?  
Show your calculation.

**Foundations 20 Final Review: Chapter 2  
Answer Section**

**MULTIPLE CHOICE**

- |      |      |      |      |
|------|------|------|------|
| 1. B | 2. D | 3. A | 4. D |
| 5. B | 6. D | 7. B | 8. D |

**SHORT ANSWER**

- $\angle BDE = 66^\circ$
- $\angle a = 15^\circ, \angle b = 30^\circ, \angle c = 10^\circ$
- $\angle PTQ = 103^\circ$
- $\angle ADE = 40^\circ, \angle EAD = 61^\circ, \angle ABC = 61^\circ, \angle BAD = 119^\circ, \angle CDA = 140^\circ$
- $x = 12^\circ$
- $180^\circ(7 - 2) = 900^\circ$
- $360^\circ - 90^\circ - 90^\circ - 120^\circ - 40^\circ = 20^\circ$