



New York State Testing Program

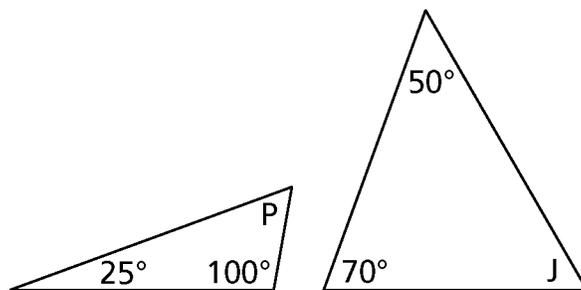
Mathematics Test

Grade **5**

2009 Scoring Guide

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

Answer $\angle P$ _____ degrees

$\angle J$ _____ degrees

QUESTION 27

STRAND 3: GEOMETRY

Complete and Correct Response:

- The total angle measure of each triangle is 180 degrees.

$$100 + 25 = 125$$

$$180 - 125 = 55$$

$$70 + 50 = 120$$

$$180 - 120 = 60$$

OR other valid process

AND

- ($\angle P$) 55 (degrees)

AND

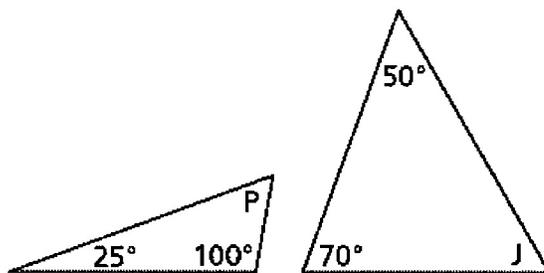
- ($\angle J$) 60 (degrees)

Score Points:

Apply 2-point holistic rubric.

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Handwritten work for $\angle P$ and $\angle J$:

$\angle P$ *Show your work.*

$$\begin{array}{r} 100 \\ + 25 \\ \hline 125^\circ \end{array}$$
$$\begin{array}{r} 180 \\ - 125 \\ \hline 55^\circ \end{array}$$

$\angle J$

$$\begin{array}{r} 70 \\ + 50 \\ \hline 120^\circ \end{array}$$
$$\begin{array}{r} 180 \\ - 120 \\ \hline 60^\circ \end{array}$$

Answer $\angle P$ 55° degrees

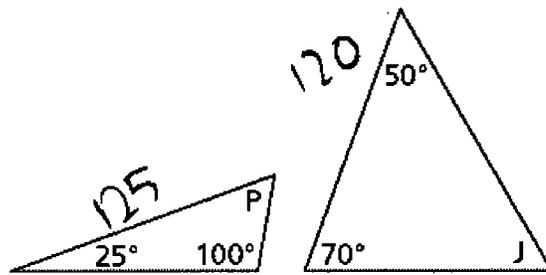
$\angle J$ 60° degrees

This response is complete and correct.

Score Point 2

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

$$\begin{array}{r} 180 \\ -120 \\ \hline 60^\circ \end{array} \quad \begin{array}{r} 180 \\ -125 \\ \hline 55 \end{array}$$

Answer $\angle P$ 55° degrees

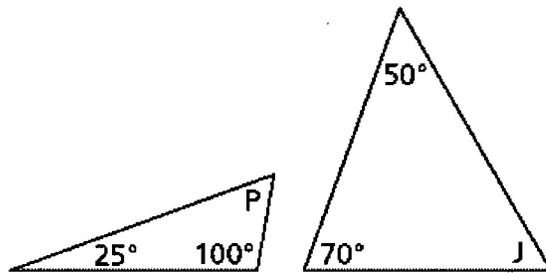
$\angle J$ 60° degrees

This response is complete and correct. The subtraction of the two known angle measures from 180 degrees is sufficient to demonstrate a thorough understanding of the task.

Score Point 2

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

$$\begin{array}{r} 100 \\ + 25 \\ \hline 125 \end{array} \quad \begin{array}{r} 180 \\ - 125 \\ \hline 55 \end{array}$$

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

$$\begin{array}{r} 50 \\ + 70 \\ \hline 120 \end{array} \quad \begin{array}{r} 180 \\ - 120 \\ \hline 60 \end{array}$$

Answer $\angle P$ 55° degrees

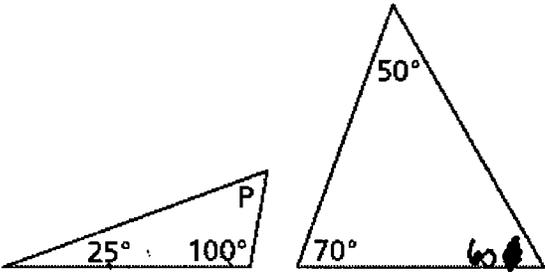
$\angle J$ 40° degrees

This response is only partially correct. A sound mathematical procedure is provided; however, a calculation error results in an incorrect answer.

Score Point 1

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

$$\begin{array}{r} 100 \\ + 25 \\ \hline \end{array} \qquad \begin{array}{r} 180 \\ - 125 \\ \hline 55 \end{array}$$

Answer $\angle P$ 55 degrees

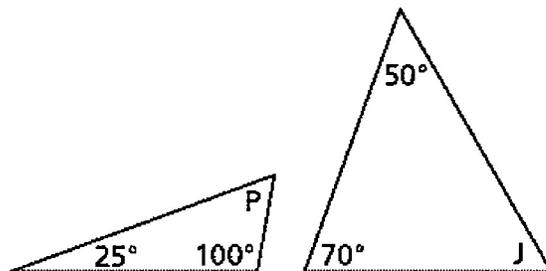
$\angle J$ 180° degrees

This response is only partially correct. A sound mathematical procedure is demonstrated to arrive at the correct degree for angle P; however, the remaining work is not shown.

Score Point 1

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

Answer $\angle P$ 55° degrees

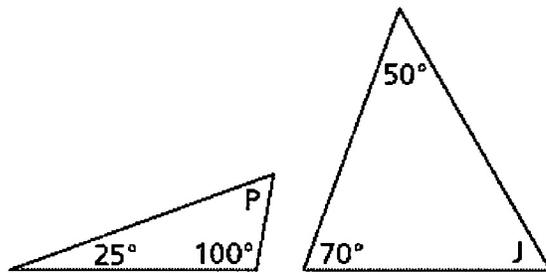
$\angle J$ 60° degrees

This response is only partially correct. The correct answers are provided; however, no work is shown.

Score Point 1

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

$$\begin{array}{r} 50 \\ +70 \\ \hline 120 \end{array}$$

Answer $\angle P$ 50 degrees

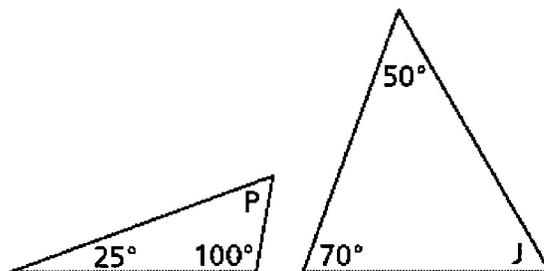
$\angle J$ 70 degrees

This response is incorrect. The addition of two given angle measures is not sufficient to demonstrate a partial understanding of the task.

Score Point 0

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

Zoe can write $\angle P$ is 75
and $\angle J$ is

Answer $\angle P$ 75^o degrees

$\angle J$ 20^o degrees

This response is incorrect.

Score Point 0



New York State Testing Program

Mathematics Test

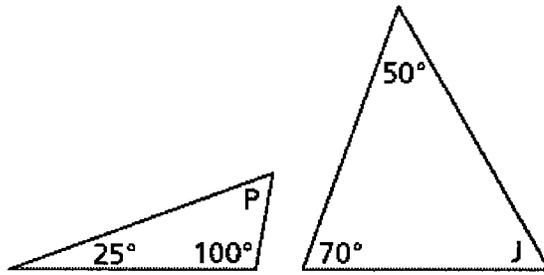
Grade **5**

2009 Practice Set

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.

$$\begin{array}{r} 100 \\ + 25 \\ + 60 \\ \hline 180 \end{array}$$



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

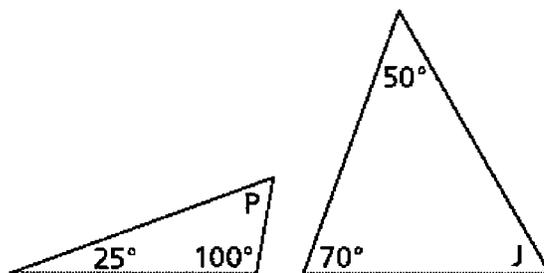
$$\begin{array}{r} 70 \\ + 30 \\ + 80 \\ \hline 180 \end{array}$$

Answer $\angle P$ 60 degrees

$\angle J$ 60 degrees

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

$$\begin{array}{r} 360 \\ - 125 \\ \hline 235 \end{array}$$

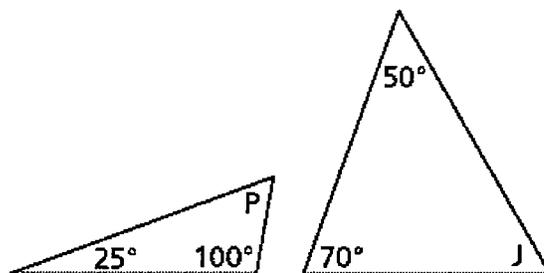
$$\begin{array}{r} 360 \\ - 120 \\ \hline 240 \end{array}$$

Answer $\angle P$ 235° degrees

$\angle J$ 240° degrees

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

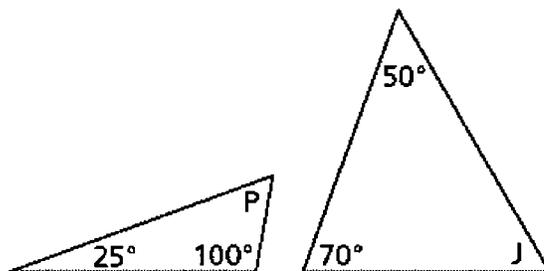
$$\begin{array}{r} 180 \\ - 100 \\ \hline 80 \\ - 25 \\ \hline 55 = \angle P \end{array} \quad \begin{array}{r} 180 \\ - 70 \\ \hline 110 \\ - 50 \\ \hline 60 = \angle J \end{array}$$

Answer $\angle P$ 55 degrees

$\angle J$ 60 degrees

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

$$\begin{array}{r} 180 \\ - 100 \\ \hline 80 \end{array}$$

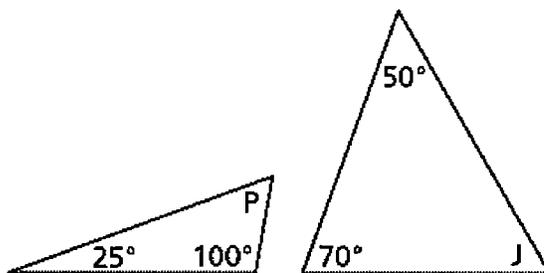
$$\begin{array}{r} 180 \\ - 20 \\ \hline 160 \end{array}$$

Answer $\angle P$ 80 degrees

$\angle J$ 160 degrees

27

Malik draws the two triangles shown below. He asks Zoe to calculate, without using a protractor, the measures for $\angle P$ and for $\angle J$.



[not drawn to scale]

What measures should Zoe write for $\angle P$ and for $\angle J$?

Show your work.

Triangles have 180°

$$\begin{array}{r} 50 \\ + 70 \\ \hline 120 + 60 = 180^\circ \end{array}$$

$$25 + 100 = 125^\circ + 55^\circ = 180^\circ$$

Answer $\angle P$ 180 degrees

$\angle J$ 60 degrees

5th GRADE MATHEMATICS

Name: _____

PRACTICE SET ANSWER KEY

PS 1	(0-2)	
PS 2	(0-2)	
PS 3	(0-2)	
PS 4	(0-2)	
PS 5	(0-2)	
PS 6	(0-2)	
PS 7	(0-2)	
PS 8	(0-2)	
PS 9	(0-2)	
PS 10	(0-2)	
PS 11	(0-2)	
PS 12	(0-2)	
PS 13	(0-2)	
PS 14	(0-2)	
PS 15	(0-2)	
PS 16	(0-2)	
PS 17	(0-2)	
PS 18	(0-2)	
PS 19	(0-2)	
PS 20	(0-2)	

PS 21	(0-3)	
PS 22	(0-3)	
PS 23	(0-3)	
PS 24	(0-3)	
PS 25	(0-3)	
PS 26	(0-3)	
PS 27	(0-3)	
PS 28	(0-3)	
PS 29	(0-3)	
PS 30	(0-3)	
PS 31	(0-3)	
PS 32	(0-3)	
PS 33	(0-3)	
PS 34	(0-3)	
PS 35	(0-3)	
PS 36	(0-3)	
PS 37	(0-3)	
PS 38	(0-3)	
PS 39	(0-3)	
PS 40	(0-3)	