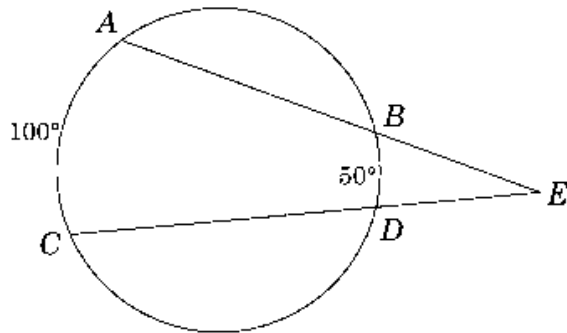


Sample Questions
for the
North Carolina High School
Comprehensive Tests
Grades 4 and 8

**Reading passage and questions removed
from on-line version due to copyright
restrictions. Pages 199-201 removed.**

Part II - Mathematics Applications

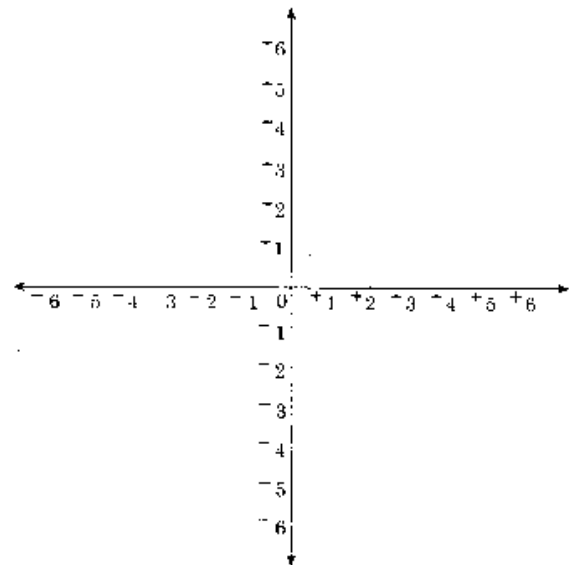
1. According to the diagram, what is $m\angle E$?



Note: Figure not drawn to scale.

- A 25°
- B 50°
- C 75°
- D 100°

2. What is the reflection of the point $(0, 4)$ about the line $y = x$?



- A $(0, 4)$
- B $(4, 0)$
- C $(-4, 0)$
- D $(0, -4)$

3. The line which passes through the points $(2, 5)$ and $(7, -2)$ also passes through which of the following points?

- A $(-16, 4)$
- B $(12, -9)$
- C $(17, 16)$
- D $(17, -12)$

4. Carol has to present a report on how tax dollars are spent. She collected the following data:

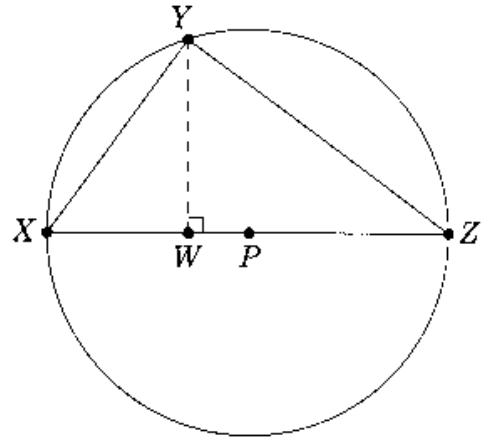
How tax dollars are spent

Payroll	12%
Buildings	35%
Roads	40%
Maintenance	10%
Supplies	3%

Which of the following would **not** be a good way for Carol to display the data?

- A stem and leaf plot
- B pictograph
- C circle graph
- D bar graph

5. The circle below represents a dart board having a 20-inch diameter.



$\triangle XYZ$ is inscribed in circle P as shown and $YW = 9.6$ inches. If a dart lands in the interior of circle P , what is the probability that it will also land in the interior of $\triangle XYZ$?

- A 0.15
- B 0.31
- C 0.46
- D 0.61

6. The table below gives the nationwide data on the number of households with CD players and the number of CDs sold for 5 consecutive years.

Nationwide CD Data

CD player in household (in millions)	CD sales (in millions)
5.1	\$7.4
10.3	\$20.9
15.4	\$35.0
22.0	\$53.1
32.0	\$79.8

Find the equation of the line that best fits these data. (Let the number of "CD player in household" be your independent variable, x , and the number of "CD sales" be your dependent variable, y .)

- A $y = 76.6x + 2.7$
- B $y = 0.4x + 2.4$
- C $y = 2.4x + 0.4$
- D $y = 2.7x - 6.6$