***Important: USE THIS REVIEW TO STUDY FOR THE FINAL ALONG WITH ALL PAGES OF YOUR UNIT 11 PACKET. I ALSO RECOMMEND USING NOTES AND OTHER ASSIGNMENTS TO STUDY.

1. Solve for the missing angles.

B)


$\mathrm{X}=$ $\qquad$
$\mathrm{x}=$ $\qquad$
? = $\qquad$
2. Solve for the missing side.
A)

B)

3. Solve for the missing angles.
A)

B)

4. A) $\triangle A B C \cong \triangle D E F$. Find $A B$ and $\mathrm{m} \angle E$.

B) $\triangle M N P \cong \triangle Q R S$. Find $N P$ and $\mathrm{m} \angle P$.

5. State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

$\triangle C B A \sim$ $\qquad$
B)

$\triangle J K L \sim$ $\qquad$
6. Solve for x .
a) $\frac{5}{7}=\frac{x}{35}$
b) $\frac{9}{x}=\frac{6}{2}$
c) $\frac{x}{13}=\frac{10}{65}$
7. Solve for the missing side.
$\underbrace{\text { A) }}_{\mathrm{x}}$


$$
x=
$$

$\qquad$


$$
x=
$$

8. Label the sides of the triangles with opposite, adjacent, and hypotenuse given the reference angle.

B)

C)

D)

9. Find the value of each trigonometric ratio.

$\sin (A)=$ $\qquad$
$\cos (\mathrm{A})=$ $\qquad$ $\cos (\mathrm{A})=$ $\qquad$
$\tan (A)=$ $\qquad$ $\tan (\mathrm{A})=$ $\qquad$
$\sin (C)=$
$\sin (C)=$ $\qquad$
$\sin (C)=$ $\qquad$
$\cos (\mathrm{C})=$ $\qquad$ $\cos (\mathrm{C})=$ $\qquad$ $\cos (\mathrm{C})=$ $\qquad$
$\tan (\mathrm{C})=$ $\qquad$ $\tan (\mathrm{C})=$ $\qquad$
$\qquad$
10. Solve for x .
A) $\quad \sin 30^{\circ}=\frac{7}{x}$
B) $\quad x=\frac{39}{\tan 47^{\circ}}$
C) $\quad \cos 25^{\circ}=\frac{x}{15}$

$$
\mathrm{X}=
$$

$\qquad$

$$
x=
$$

11. (A) QuadDEFG is similar to QuadD'E'F'G'. If the length of $D E$ is 16 and the length of $D^{\prime} E^{\prime}$ is 4 , what is the scale factor of the dilation?


Scale Factor $=$ $\qquad$
B) Triangle $A^{\prime} B^{\prime} C$ is a dilation of triangle $A B C$. If the length of $A C$ is 30 and the length of $A^{\prime} \mathrm{C}$ is 10 , compare the length of AC and $\mathrm{A}^{\prime} \mathrm{C}$.

$\qquad$

12. We must choose a 3-member team from 12 girls and 10 boys. We randomly choose one member at a time. What is the probability of choosing a boy first, a girl second, and a boy last?
13. Ramon must choose a 5-member team from 300 students. Not counting the order in which students are selected, how many different sets of five can be chosen from the 300 students.
14. Use the chart below to answer the following question. What is the probability that an $11^{\text {th }}$ grader has a cell phone?

|  | Grade 11 | Grade 12 | Totals |
| :--- | :--- | :--- | :--- |
| Has cellphone | 59 | 50 | 109 |
| No cellphone | 6 | 3 | 9 |
| Totals | 65 | 53 | 118 |

Additional Problems: Unit 11 Packet
Pg. 5 \#6
Pg. 11 \#2
Pg. 7 \#2
Pg. 17 \#6
Pg. 14 \#1
Pg. 11 \#1
Pg. 13 \#3

