Name: _____ Hour: _____

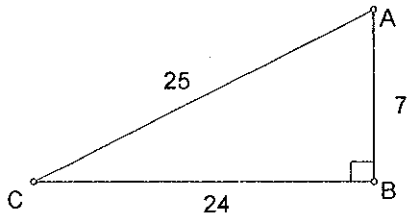
DBA7B Review Packet

1. Write the trigonometric ratio as a fraction and as a decimal rounded to the nearest hundredth.

sin A=

tan C=

cos C=



2. Which of the following equations could be used to determine the value of A?

25 sin A = 7 25 sin A = 24 7 sin A= 24

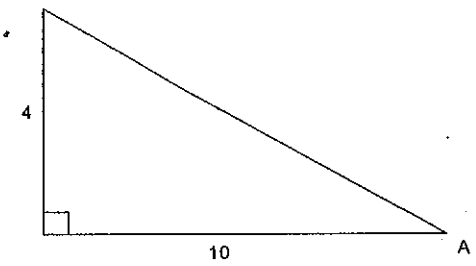
~~3. Which of the following equations could be used to determine the value of C?~~

~~7 sin C = 24~~ ~~7 tan C = 24~~ ~~24tan C = 11~~

4. The sides of a right triangle measure 6 cm, 8 cm, and 10 cm. What is the sine of the angle adjacent to the side that measures 8 cm?

5. The sides of a right triangle measure 14 cm, 48 cm, and 50 cm. What is the cosine of the angle opposite to the side that measures 14 cm?

6. Find the sin(A) to the nearest hundredth. sin(A) = _____



7. Use your calculator to find trigonometric ratios sin 53°, cos 42°, and tan 63°. Round to the nearest hundredth.

sin 53° =_____ cos 42° _____ tan 63°_____

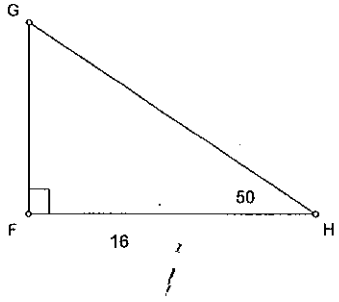
Use a special right triangle to find each value as a fraction.

8. cos 45 = _____ 9. cos 60 = _____

10. tan 45 = _____ 11. sin 60 = _____

12. Which is better, $\frac{\sqrt{3}}{2}$ or .866025...and why? _____

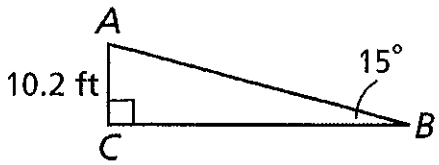
13. Find *GH*. Round to the nearest hundredth.

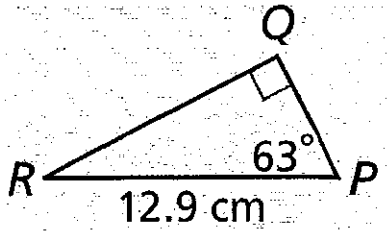


GH _____

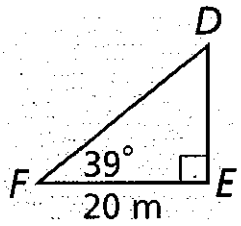
Find the length. Round to the nearest hundredth.

14. BC = _____ 15. QR = _____

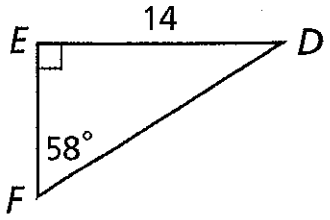




16. FD = _____

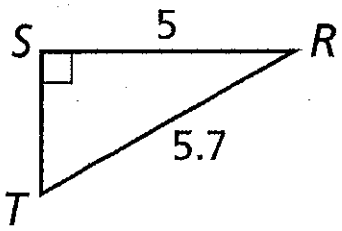


17. FE = _____



18. Use your calculator to find the angle measures $\sin^{-1}(0.5)$, $\cos^{-1}(0.25)$, and $\tan^{-1}(9.1)$ to the nearest tenth of a degree.

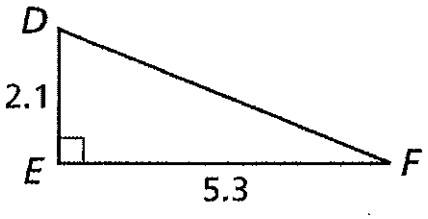
19. Find $\angle R$.



Find the missing angle measures. Round to the nearest degree.

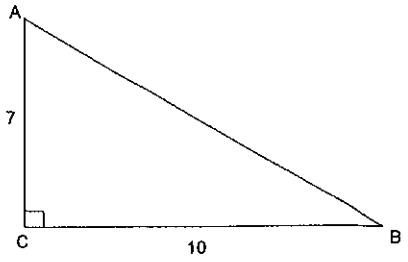
20. $m\angle D =$ _____

$m\angle F =$ _____



21. $m\angle A =$ _____

$m\angle B =$ _____



22. Jessie is building a ramp for loading motorcycles onto a trailer. The trailer is 6 feet off of the ground. To avoid making it too difficult to push a motorcycle up the ramp, Jessie decides to make the angle between the ramp and the ground 10°. To the nearest hundredth of a foot, find the length of the ramp.

Length of ramp _____

23. Some mountains in the Alps are very steep and have a grade of 32%. To the nearest degree, what angle do these mountains make with a horizontal line?

A hiking trail has a slope of $\frac{9}{19}$. What is the measure of the angle of elevation (the angle the trail makes with the horizontal line)? Round to the nearest degree.

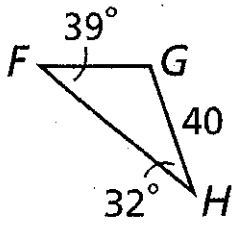
24. An eagle 250 feet in the air spots its prey on the ground. The angle of depression to its prey is 12°. What is the horizontal distance between the eagle and its prey? Round to the nearest foot.

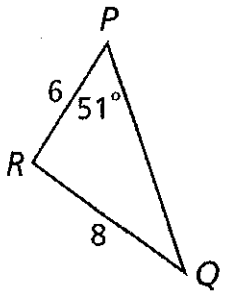
25. An air traffic controller at an airport sights a plane at an angle of elevation of 41°. The pilot reports that the plane's altitude is 4000 ft. What is the horizontal distance between the plane and the airport?

26. For what conditions would you use the Law of Sines to find a missing value in a triangle?

27. For what conditions would you use the Law of Cosines to find a missing value in a triangle?

Use the Law of Sines to solve.

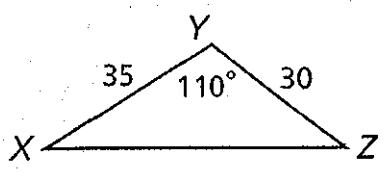


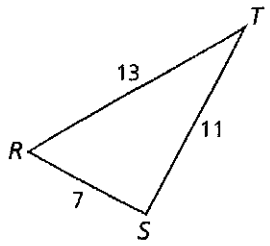


28. FG = _____

29. $m\angle Q$ = _____

Use the Law of Cosines to solve





30. XZ = _____

31. $m\angle T$ = _____