Lesson 5.4 Practice: Sum and Difference Formulas

School Launch · Trigonometry · Unit 5: Trigonometric Identities · Worksheet A

Scientific calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Use a sum or difference formula to find the exact value of $\sin -15^\circ$ (as $\sin(45^\circ - 60^\circ)$). EASY

2. Use a sum or difference formula to find the exact value of $\cos 105^\circ$ (as $\cos(45^\circ + 60^\circ)$). EASY

3. Use a sum or difference formula to find the exact value of $\sin -15^\circ$ (as $\sin(30^\circ - 45^\circ)$). EASY

4. Use a sum or difference formula to find the exact value of $\sin 165^\circ$ (as $\sin(135^\circ + 30^\circ)$). MEDIUM

5. Use a sum or difference formula to find the exact value of $\cos 15^\circ$ (as $\cos(45^\circ - 30^\circ)$). MEDIUM

6. Use a sum or difference formula to find the exact value of $\cos 15^\circ$ (as $\cos(60^\circ - 45^\circ)$). MEDIUM

7. Use a sum or difference formula to find the exact value of $\sin 105^\circ$ (as $\sin(135^\circ - 30^\circ)$). MEDIUM

8. Use a sum or difference formula to find the exact value of $\tan -15^\circ$ (as $\tan(30^\circ - 45^\circ)$). HARD

9. Use a sum or difference formula to find the exact value of $\sin 105^\circ$ (as $\sin(60^\circ + 45^\circ)$). HARD

10. Use a sum or difference formula to find the exact value of $\sin 75^\circ$ (as $\sin(45^\circ + 30^\circ)$). HARD