

Name _____

Date _____

Year Group _____

Express as a trigonometric function of one angle

1. $\cos(70^\circ) * \cos(40^\circ) - \sin(70^\circ) * \sin(40^\circ)$

Answer = _____ °

2. $\sin(60^\circ) * \cos(20^\circ) - \sin(60^\circ) * \cos(20^\circ)$

Answer = _____ °

3.
$$\frac{\tan(18^\circ) - \tan(12^\circ)}{1 + \tan(18^\circ) * \tan(12^\circ)}$$

Answer = _____ °

Find the exact value using the sum and subtraction formulas

There are 2 answers – Use the pairing with the biggest difference

Write the bigger angle first

4. $\cos 195^\circ$

Steps => $\cos(\text{_____}^\circ) * \cos(\text{_____}^\circ) - \sin(\text{_____}^\circ) * \sin(\text{_____}^\circ)$

Steps =>

$$\frac{-\sqrt{\text{____}}}{\text{___}} * \frac{\sqrt{\text{____}}}{\text{___}} - \frac{\text{____}}{\text{___}} * \frac{\sqrt{\text{____}}}{\text{___}}$$

Steps =>

$$\frac{-\sqrt{\text{____}}}{\text{___}} - \frac{\sqrt{\text{____}}}{\text{___}}$$

Answer =>
$$\frac{-\sqrt{\text{____}} - \sqrt{\text{____}}}{\text{___}}$$
 or
$$\frac{-\sqrt{\text{____}} + \sqrt{\text{____}}}{\text{___}}$$