

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