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3.10 Trigonometric identities revisited

Checklist

What you should know

By the end of this subtopic you should be able to:

- recognise and use
  - the compound angle identities:

$$\sin(\alpha \pm \beta) = \cos\alpha\sin\beta \pm \sin\alpha\cos\beta$$
$$\cos(\alpha \pm \beta) = \cos\alpha\cos\beta \mp \sin\alpha\sin\beta$$

  - the double angle identity for tangent $\tan 2\theta = \dfrac{2\tan\theta}{1 - \tan^2\theta}$

- find exact values of trigonometric ratios of compound angles.

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