Task card 1 Double-Angle Formulas

$\sin\theta = -\frac{5}{13}$ and θ is in quadrant IV. Find the exact value of $\cos 2\theta$.

Task card 2 Double-Angle Formulas

$\cos\theta = -\frac{12}{13}$ and θ is in quadrant II. Find the exact value of $\sin 2\theta$.

Task card 3 Double-Angle Formulas

Find the exact value:

$1 - 2\sin^2(105°)$

Task card 4 Double-Angle Formulas

$\sin\theta = -\frac{12}{13}$ and θ is in quadrant III. Find the exact value of $\tan 2\theta$.

Task card 5 Double-Angle Formulas

$\sin\theta = -\frac{7}{25}$ and θ is in quadrant III. Find the exact value of $\cos 2\theta$.

Task card 6 Double-Angle Formulas

Find the exact value:

$\cos^2(75°) - \sin^2(75°)$

Task card 7 Double-Angle Formulas

$\sin\theta = -\frac{4}{5}$ and θ is in quadrant III. Find the exact value of $\tan 2\theta$.

Task card 8 Double-Angle Formulas

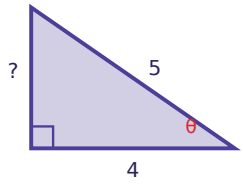
Find the exact value: $2\sin(165°)\cos(165°)$

Task card 9 Double-Angle Formulas

$\cos\theta = \frac{15}{17}$ and θ is in quadrant IV. Find the exact value of $\sin 2\theta$.

Task card 10 Double-Angle Formulas

$\cos\theta = \frac{4}{5}$ and θ is acute. Find the exact value of $\tan 2\theta$.



Task card 11 Double-Angle Formulas

Find the exact value: $\cos^2(120°) - \sin^2(120°)$

Task card 12 Double-Angle Formulas

$\cos\theta = -\frac{4}{5}$ and θ is in quadrant III. Find the exact value of $\cos 2\theta$.

Task card 13 Double-Angle Formulas

$\sin\theta = -\frac{3}{5}$ and θ is in quadrant IV. Find the exact value of $\tan 2\theta$.

Task card 14 Double-Angle Formulas

Find the exact value:

$1 - 2\sin^2(67.5°)$

Task card 15 Double-Angle Formulas

$\sin\theta = -\frac{3}{5}$ and θ is in quadrant III. Find the exact value of $\tan 2\theta$.

Task card 16 Double-Angle Formulas

Find the exact value:

$2\cos^2(30°) - 1$

Task card 17 Double-Angle Formulas

$\sin\theta = \frac{3}{5}$ and θ is in quadrant II. Find the exact value of $\cos 2\theta$.

Task card 18 Double-Angle Formulas

$\cos\theta = \frac{8}{17}$ and θ is in quadrant IV. Find the exact value of $\cos 2\theta$.

Task card 19 Double-Angle Formulas

$\sin\theta = -\frac{4}{5}$ and θ is in quadrant IV. Find the exact value of $\sin 2\theta$.

Task card 20 Double-Angle Formulas

$\cos\theta = \frac{3}{5}$ and θ is in quadrant IV. Find the exact value of $\sin 2\theta$.

Task card 21 Double-Angle Formulas

Find the exact value:

$\cos^2(60°) - \sin^2(60°)$

Task card 22 Double-Angle Formulas

Find the exact value:

$1 - 2\sin^2(157.5°)$

Task card 23 Double-Angle Formulas

$\sin\theta = -\frac{12}{13}$ and θ is in quadrant III. Find the exact value of $\cos 2\theta$.

Task card 24 Double-Angle Formulas

$\sin\theta = \frac{8}{17}$ and θ is in quadrant II. Find the exact value of $\tan 2\theta$.

Double-Angle Formulas Task Cards

Recording sheet · Grade 12 · Give exact answers: fractions in simplest form, or radicals like √3/2.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Double-Angle Formulas Task Cards: Answer Key

Grade 12 · Hard

The answers online

1. $\frac{119}{169}$	**2.** $-\frac{120}{169}$	**3.** $-\frac{\sqrt{3}}{2}$
4. $-\frac{120}{119}$	**5.** $\frac{527}{625}$	**6.** $-\frac{\sqrt{3}}{2}$
7. $-\frac{24}{7}$	**8.** $-\frac{1}{2}$	**9.** $-\frac{240}{289}$
10. $\frac{24}{7}$	**11.** $-\frac{1}{2}$	**12.** $\frac{7}{25}$
13. $-\frac{24}{7}$	**14.** $-\frac{\sqrt{2}}{2}$	**15.** $\frac{24}{7}$
16. $\frac{1}{2}$	**17.** $\frac{7}{25}$	**18.** $-\frac{161}{289}$
19. $-\frac{24}{25}$	**20.** $-\frac{24}{25}$	**21.** $-\frac{1}{2}$
22. $\frac{\sqrt{2}}{2}$	**23.** $-\frac{119}{169}$	**24.** $-\frac{240}{161}$