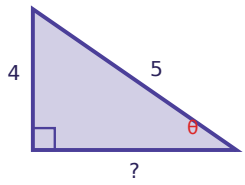
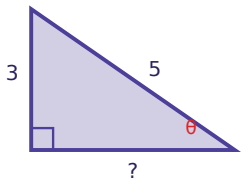
Task card 1 Double-Angle Formulas

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



Task card 2 Double-Angle Formulas

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



Task card 3 Double-Angle Formulas

Find the exact value: $2\tan(165°) / (1 - \tan^2(165°))$

Task card 4 Double-Angle Formulas

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

Task card 5 Double-Angle Formulas

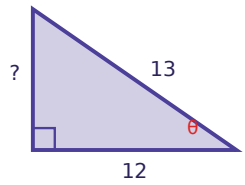
$\cos\theta = -\frac{3}{5}$ and θ is in quadrant II. Find the exact value of $\tan 2\theta$.

Task card 6 Double-Angle Formulas

Find the exact value: $2\cos^2(22.5°) - 1$

Task card 7 — Double-Angle Formulas

$\cos\theta = \frac{12}{13}$ and θ is acute. Find the exact value of $\cos 2\theta$.



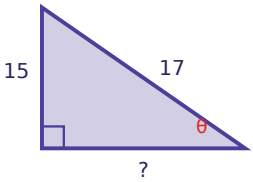
Task card 8 — Double-Angle Formulas

Find the exact value:

$\cos^2(60°) - \sin^2(60°)$

Task card 9 — Double-Angle Formulas

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



Task card 10 — Double-Angle Formulas

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

Task card 11 — Double-Angle Formulas

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

Task card 12 — Double-Angle Formulas

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

Task card 13 Double-Angle Formulas

Find the exact value:

$2\cos^2(165°) - 1$

Task card 14 Double-Angle Formulas

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

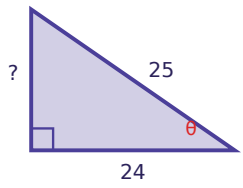
Task card 15 Double-Angle Formulas

Find the exact value:

$2\tan(105°) / (1 - \tan^2(105°))$

Task card 16 Double-Angle Formulas

$\cos\theta = \frac{24}{25}$ and θ is acute. Find the exact value of $\tan 2\theta$.



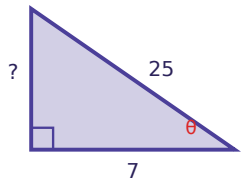
Task card 17 Double-Angle Formulas

Find the exact value:

$2\sin(120°)\cos(120°)$

Task card 18 Double-Angle Formulas

$\cos\theta = \frac{7}{25}$ and θ is acute. Find the exact value of $\cos 2\theta$.



Task card 19 Double-Angle Formulas

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

Task card 20 Double-Angle Formulas

Find the exact value:

$2\sin(60°)\cos(60°)$

Task card 21 Double-Angle Formulas

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

Task card 22 Double-Angle Formulas

Find the exact value:

$2\cos^2(30°) - 1$

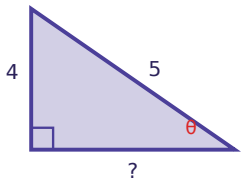
Task card 23 Double-Angle Formulas

Find the exact value:

$2\sin(30°)\cos(30°)$

Task card 24 Double-Angle Formulas

$\sin\theta = \frac{4}{5}$ and θ is acute. 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 · Medium

The answers online

1. $-\frac{7}{25}$	**2.** $\frac{7}{25}$	**3.** $-\frac{\sqrt{3}}{3}$
4. $\frac{119}{169}$	**5.** $\frac{24}{7}$	**6.** $\frac{\sqrt{2}}{2}$
7. $\frac{119}{169}$	**8.** $-\frac{1}{2}$	**9.** $-\frac{161}{289}$
10. $-\frac{240}{161}$	**11.** $-\frac{24}{7}$	**12.** $-\frac{24}{25}$
13. $\frac{\sqrt{3}}{2}$	**14.** $\frac{120}{169}$	**15.** $\frac{\sqrt{3}}{3}$
16. $\frac{336}{527}$	**17.** $-\frac{\sqrt{3}}{2}$	**18.** $-\frac{527}{625}$
19. $\frac{161}{289}$	**20.** $\frac{\sqrt{3}}{2}$	**21.** $-\frac{161}{289}$
22. $\frac{1}{2}$	**23.** $\frac{\sqrt{3}}{2}$	**24.** $-\frac{24}{7}$