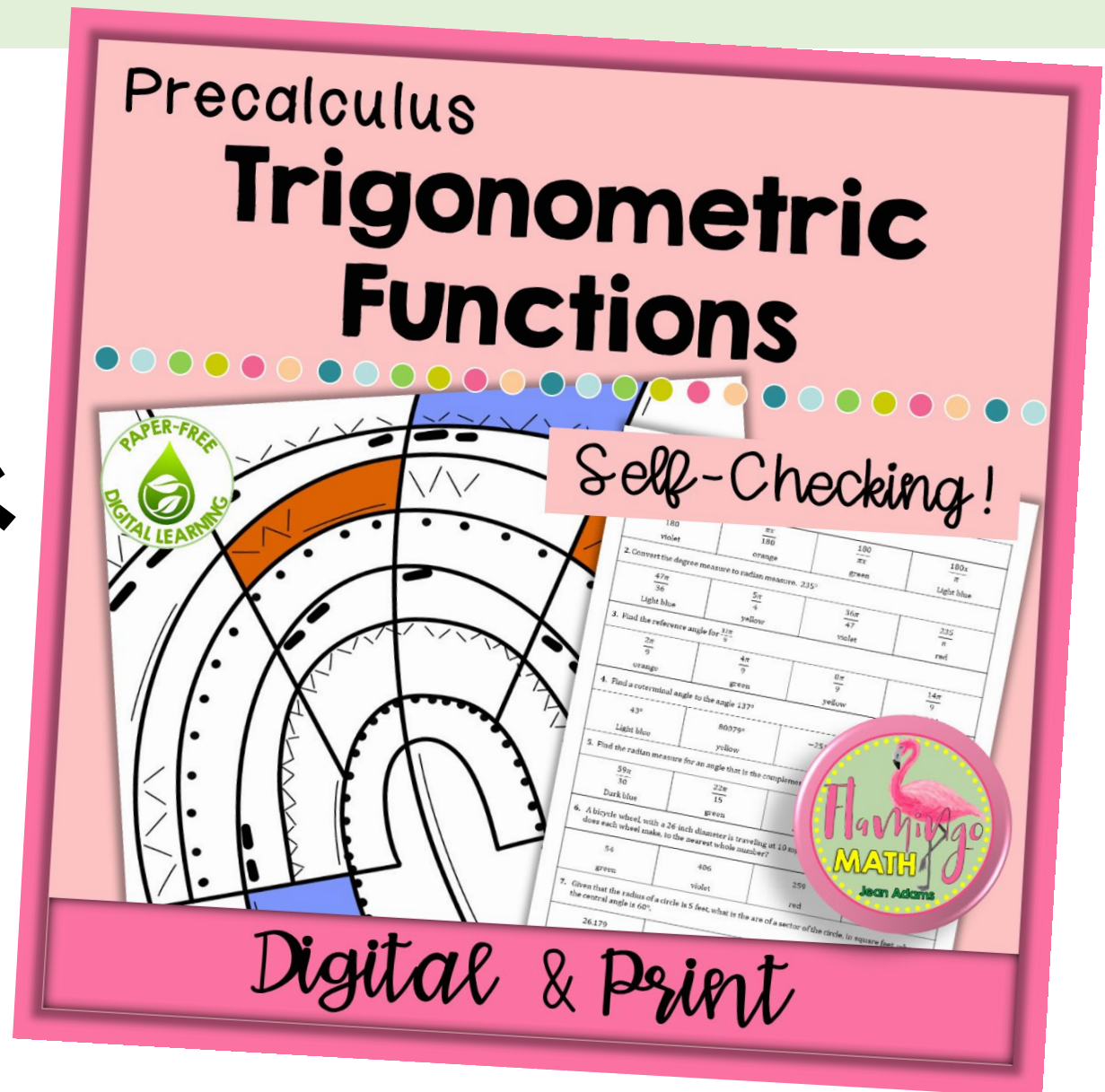
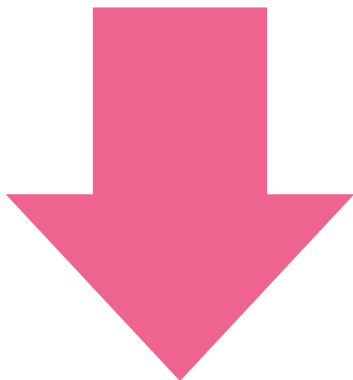


Precalculus Mystery Puzzle with Google Slides!

Self-Grading
Digital
No Prep Activity

Take a look inside!



Printable Product Pages:

Directions: Find the answer for each question and color the picture for your answer choice on the image to complete the mystery puzzle.

1. What is the radian measure of an angle of x degrees?

$\frac{x}{180}$	$\frac{\pi x}{180}$	$\frac{180}{\pi x}$	$\frac{180x}{\pi}$
violet	orange	green	Light blue

2. Convert the degree measure to radian measure. 235°

$\frac{47\pi}{36}$	$\frac{5\pi}{4}$	$\frac{36\pi}{47}$	$\frac{235}{\pi}$
Light blue	yellow	violet	red

3. Find the reference angle for $\frac{22\pi}{9}$

$\frac{2\pi}{9}$	$\frac{4\pi}{9}$	$\frac{8\pi}{9}$	$\frac{14\pi}{9}$
orange	green	yellow	Dark blue

4. Find a coterminal angle to the angle 137°

43°	80079°	-251146°	-357343°
Light blue	yellow	violet	red

5. Find the radian measure for an angle of 30°

$\frac{59\pi}{30}$	$\frac{\pi}{30}$	$\frac{30}{\pi}$	$\frac{59}{\pi}$
Dark blue	yellow	Light blue	green

6. A bicycle wheel, with a 26-inch diameter, rotates at 100 revolutions per minute. How far does each wheel make, to the nearest foot?

54	100	157	314
green	orange	Dark blue	Light blue

7. Given that the radius of a circle is 10 cm, find the area of the sector formed by a central angle of 60° .

26.179	10.996	10.996	10.996
orange	yellow	Light blue	Dark blue

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8. A wheel is turning at a constant rate and completes 100 revolutions in 10 seconds. What is the angular speed of the wheel?

31 rad/sec	63 rad/sec	10 rad/sec	0.63 rad/sec
yellow	Light blue	green	Dark blue

9. One revolution per minute is approximately

0.105 rad/sec	0.95 rad/sec	1.57 rad/sec	0.05 rad/sec
green	orange	Dark blue	Light blue

10. A fan has blades of 0.25 meter in radius, rotating at 20 rpm. Find the approximate linear speed of each blade tip.

0.02 m/s	0.25 m/s	0.52 m/s	5.2 m/s
Light blue	yellow	red	Dark blue

11. Use the arc length formula to find the radius, r . Given $s = 14$ cm. $\theta = 42^\circ$.

$\frac{1}{3}$ cm	$\frac{30}{\pi}$ cm	$\frac{120}{\pi}$ cm	$\frac{60}{\pi}$ cm
orange	red	violet	Dark blue

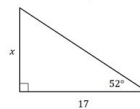
12. Convert the radian measure to degree measure. $\frac{55\pi}{18}$. Round your answer to two decimal places.

550°	275°	9.59°	$110\pi^\circ$
Light blue	green	orange	red

13. Assume that θ is an acute angle in a right triangle. If $\sin \theta = \frac{7}{8}$. Find $\cot \theta$.

$\frac{8}{\sqrt{15}}$	$\frac{\sqrt{15}}{7}$	$\frac{7}{\sqrt{15}}$	$\frac{\sqrt{15}}{8}$
green	orange	Dark blue	yellow

14. Solve for x .



13.4	21.76	13.28	10.47
violet	yellow	orange	green

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15. Choose the point on the terminal side of $\theta = \frac{2\pi}{3}$

$(1, -\sqrt{3})$	$(-\sqrt{3}, 1)$	$(-1, \sqrt{3})$	$(\sqrt{3}, -1)$
Dark blue	Light blue	yellow	orange

16. Find the value of the angle θ , between 0 and 2π , where $\cos \theta = -\frac{\sqrt{2}}{2}$ and $\tan \theta > 0$.

$\frac{3\pi}{4}$	$\frac{4\pi}{3}$	$\frac{\pi}{4}$	$\frac{5\pi}{4}$
green	orange	violet	Light blue

17. From a distance of 1210 feet from a spotlight, the angle of elevation to a small airplane is 41° . Find the height of the plane to the nearest foot.

1052 feet	1392 feet	913 feet	794 feet
Orange	Green	Yellow	Dark blue

18. Solve for θ , where $0 < \theta \leq \frac{\pi}{2}$. Given: $\sin \theta = \frac{\sqrt{3}}{2}$

$\frac{\pi}{4}$	$\frac{\pi}{6}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
red	Dark blue	Yellow	violet

19. From a boat on the lake, the angle of elevation to the top of a cliff is $27^\circ 41'$. If the base of the cliff is 690 feet from the boat, how high is the cliff (to the nearest foot)?

372 feet	365 feet	375 feet	362 feet
violet	orange	yellow	Dark blue

20. Name the quadrant in which the angle θ lies.

Quadrant III	Quadrant IV	Quadrant I	Quadrant II
green	yellow	Light blue	Dark blue

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Trigonometry Mystery Puzzle

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

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Date: _____

COLOR BY CODE WORKSHEET

Green	Violet	Red	Light Blue
Orange	Yellow	Dark Blue	

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