Algebra 2 Name_____

SHOW-ALL-WORK for CREDIT Review Topics Worksheet (Take-Home Quiz)

State the quadrant in which the terminal side of each angle lies.

1) $525°$

2) $\frac{13\pi}{9}$

3) $\frac{3\pi}{4}$

4) $10°$

Find the reference angle.

5) $415°$

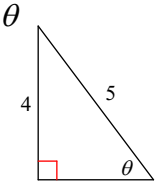
6) $230°$

7) $400°$

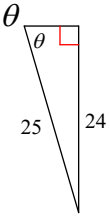
8) $-115°$

Find the value of the trig function indicated.

9) $\tan\theta$



10) $\tan\theta$



Find a coterminal angle between 0° and 360°.

11) $440°$

12) $375°$

Perform the indicated operation.

13) $h(x) = x - 5$
$g(x) = x^3 + 3$
Find $(h \circ g)(3)$

14) $f(n) = -n + 3$
$g(n) = 4n + 3$
Find $(f + g)(-10)$

15) $g(t) = t + 3$
$h(t) = 2t - 3$
Find $5g(6) + 5h(6)$

16) $f(t) = t - 1$
Find $(f \circ f)(-1)$

17) $g(x) = -2x + 2$
$f(x) = 3x^2 - 2 - x$
Find $g(1) + f(1)$

18) $g(t) = 2t + 5$
$h(t) = t^3 - 5$
Find $g(-5) - h(-5)$

19) $h(n) = n^2 - 2$
$g(n) = -n + 5$
Find $-2h(3) - 4g(3)$

20) $f(t) = 3t - 2$
$g(t) = 4t - 1$
Find $(f - g)(9)$

Find the common difference, the 52nd term, and the explicit formula.

21) 32, 27, 22, 17, ...

22) 8, 10, 12, 14, ...

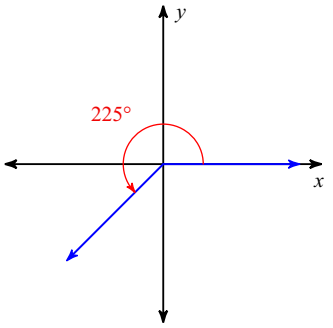
Evaluate each arithmetic series described.

23) $19 + 23 + 27 + 31..., \ n = 14$

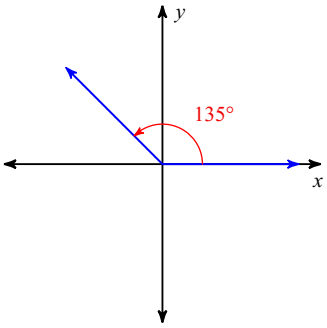
24) $39 + 49 + 59 + 69..., \ n = 18$

Find the exact value of each trigonometric function.

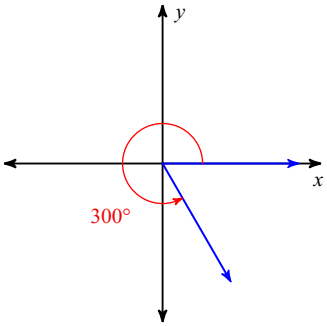
25) sin θ



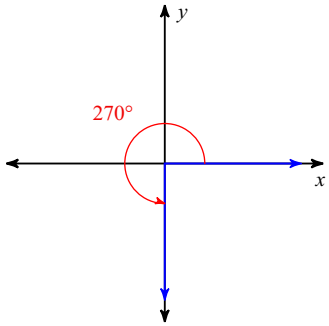
26) sin θ



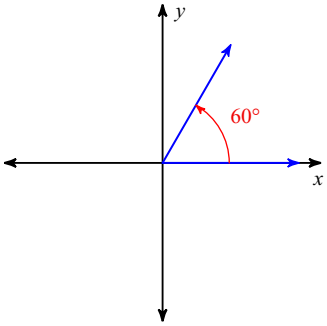
27) cos θ



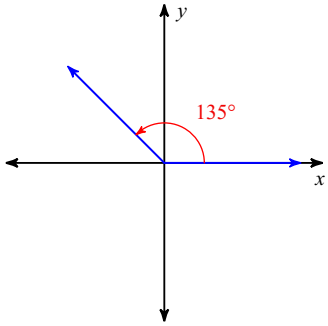
28) cos θ



29) cos θ



30) tan θ



Answers to SHOW-ALL-WORK for CREDIT Review Topics Worksheet (Take-Home Quiz

1) II
2) III
3) II
4) I
5) 55°
6) 50°
7) 40°
8) 65°
9) $\frac{4}{3}$
10) $\frac{24}{7}$
11) 80°
12) 15°
13) 25
14) –24
15) 90
16) –3
17) 0
18) 125
19) –22
20) –10
21) Common Difference: $d = -5$
$a_{52} = -223$
Explicit: $a_n = 37 - 5n$
22) Common Difference: $d = 2$
$a_{52} = 110$
Explicit: $a_n = 6 + 2n$
23) 630
24) 2232
25) $-\frac{\sqrt{2}}{2}$
26) $\frac{\sqrt{2}}{2}$
27) $\frac{1}{2}$
28) 0
29) $\frac{1}{2}$
30) –1