Radian Measure (4.1) p175 day 1

Enneagram 8 The Challenging Protector

Strong protectors, most energy
Big hearts - first to give

Core longing: independence
Core fear: betrayal / loss of control
Deadly sin: lust (intensity)

Can be aggressive & intimidating
Only trust a few people - lifetime

guy in boots

other teacher

Don't make plans for them
Love arguing & lively debate
Not bullies - not afraid

tough for female 8s
Bridget & excuses

THE INVENTION OF CLINICAL TRIALS

p175 day 1

14. Determine the equation with least degree for each polynomial function. Sketch a graph of each.

13, 19

a) a cubic function with zeros −3 (multiplicity 2) and 2 and *y*-intercept −18

b) a quintic function with zeros −1 (multiplicity 3) and 2 (multiplicity 2) and *y*-intercept 4

c) a quartic function with a negative leading coefficient, zeros −2 (multiplicity 2) and 3 (multiplicity 2), and a constant term of −6

$y = -\frac{1}{6}(x+2)^2(x-3)^2$ −36

c) Sketch the $y = 0.5(-3($

13. A boardw built arou pond is 3(combined the boardv width of t

19. Four consecutive integers l of 840. What are the four i

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think about this..

The turbines at the Hermanville wind farm have a rotor diameter of 56 m. If a blade makes 1 full revolution in 4 seconds, how fast is the blade tip travelling in km/h?

The depth of water in a harbour is modeled by $d(t) = 8\cos\frac{\pi}{6}t + 12$
Find the depth at 11:00 am.

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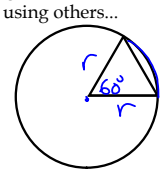
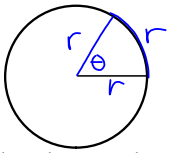
Degrees are not the only unit to measure angles. There are advantages to using others...



circumference = $2\pi r$
$= 2\pi$ radians

$180° = \pi$ radians



the radius = 1 radian

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ex1: convert to radians

$47° \times \frac{\pi \text{ rad}}{180°} = 0.82 \text{ rad}$

$139° \times \frac{\pi \text{ rad}}{180°} = 2.43 \text{ rad}$

$220° \times \frac{\pi \text{ rad}}{180°} = 3.84 \text{ rad}$

ex2: convert to degrees

$2.57 \text{ rad} \times \frac{180°}{\pi \text{ rad}} = 147°$

$3.8 \text{ rad} \times \frac{180°}{\pi \text{ rad}} = 218°$

$6 \text{ rad} \times \frac{180°}{\pi \text{ rad}} = 344°$

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But we like to use exact values whenever we can.

so if $180° = \pi$ then $90° = \frac{\pi}{2}$

ex3: What angle in degrees is equal to

$\frac{\pi}{6} = 30°$ $\frac{\pi}{4} = 45°$ $\frac{3\pi}{4} = 135°$

$\frac{11\pi}{6} = 330°$ $\frac{2\pi}{3} = 120°$ $\frac{5\pi}{2} = 450°$

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ex4: Find a co-terminal angle for

$40°$ $+360°$ $400°$

$100°$ $+360°$ $460°$

$\frac{\pi}{2} + 2\pi = \frac{\pi}{2} + \frac{4\pi}{2} = \frac{5\pi}{2}$

Co-terminal angles share the same terminal arm. Go all the way around the circle.

$\frac{\pi}{3} + 2\pi = \frac{\pi}{3} + \frac{6\pi}{3} = \frac{7\pi}{3}$

$\frac{5\pi}{6} + 2\pi = \frac{5\pi}{6} + \frac{12\pi}{6} = \frac{17\pi}{6}$

2ace

4ace

6abc

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HW: p175#7bd, 8ab