

Ch. 4 + 6 Review

1. $\frac{180(n-2)}{9} = \underline{140^\circ}$

2. $\frac{360}{9} = \underline{40^\circ}$

3. $\frac{180(n-2)}{n} = 157.5$

$180n - 360 = 157.5n$
 $n = \underline{16 \text{ sides}}$

4. $180(n-2) = 2160$
 $n = \underline{14 \text{ sides}}$

5. $\frac{360}{n} = 20$
 $n = \underline{18 \text{ sides}}$

6. $\frac{180(12-2)}{12} = \underline{150^\circ}$

7. $\frac{180(n-2)}{n} = 162$
 $180n - 360 = 162n$
 $n = \underline{20 \text{ sides}}$

8. $(7-2)180 = \underline{900^\circ}$

9. $\frac{180(5-2)}{5} = \underline{108^\circ}$

10. $\frac{360}{n} = 9$
 $n = \underline{40 \text{ sides}}$

11. $7x + 22y = 247$
 $-14x + 10y = -8$ (2)
 $\underline{14x + 44y = 494}$

$54y = 486$

$y = 9$

$7x + 198 = 247$

$x = 7$

$x = 7$

$y = 9$

12. $7y - 4 = 80$

$y = 12$

$10x + 80 = 180$

$x = 10$

$x = 10$

$y = 12$

$30z + 330 = 540$

$z = 7$

$z = 7$

13. $3z - 3 = 360$

$z = 121$

$x = 59, y = 49, z = 72$

14. $38x + 27 = 540$

$x = 13.5$

15. $6x + 216 = 360$

$x = 24$

$a = 156, b = 132, c = 108$

16. $2 < x < 22$

5, 9, 18, 21

17. shortest $\rightarrow \overline{CB}$
 longest $\rightarrow \overline{AC}$

18. $3x^2 + 9x - 2x - 6 = 0$

$3x(x+3) - 2(x+3)$

$(3x-2)(x+3) = 0$

~~$\frac{-18x^2}{9x} = -2x$
 $7x$~~

$x = \frac{2}{3} \text{ or } -3$

FIVE STAR
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 FIVE STAR

Ch. 4 + 6 Review continued

19.
$$x = \frac{-7 \pm \sqrt{7^2 - 4(3)(-6)}}{2 \cdot 3}$$

$$x = \frac{-7 \pm 11}{6} = \frac{-18}{6} = -3 \text{ or } \frac{4}{6} = \frac{2}{3}$$

20.
$$m = \frac{16 - 2}{-6 - 15} = \frac{14}{-21} = -\frac{2}{3}$$

(21)
↓

$$y - 2 = -\frac{2}{3}(x - 15)$$

$$y - 2 = -\frac{2}{3}x + 10$$

$$y = -\frac{2}{3}x + 12$$

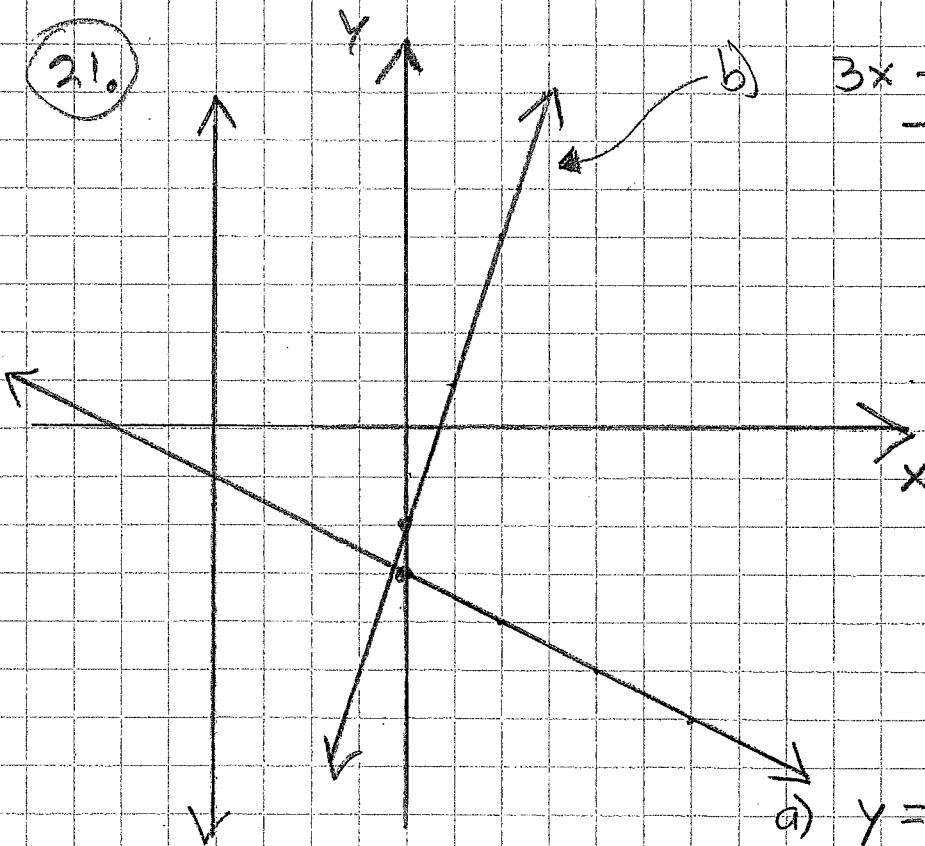
22. line n: $y = \frac{1}{2}x + 2$

line p: $y = 2x - 8$

parallel: $m \neq p$

perpendicular: $m \cdot p$

(21)



$$3x - y = 2$$

$$-y = -3x + 2$$

$$y = 3x - 2$$

a)
$$y = -\frac{1}{2}x - 3$$

c)
$$x = -4$$