

15. $y = -\frac{20}{x}; y = -\frac{20}{3}$

16. $y = \frac{9}{x}; y = 3$

17. $y = -\frac{24}{x}; y = -8$

18. $y = \frac{14}{x}; y = \frac{14}{3}$

19. $y = \frac{21}{x}; y = 7$

20. $y = \frac{5}{x}; y = \frac{5}{3}$

21. $y = \frac{2}{x}; y = \frac{2}{3}$

22. $y = -\frac{35}{3x}; y = -\frac{35}{9}$

23. The equation for direct variation was used; Because $5 = \frac{a}{8}$,
 $a = 40$. So, $y = \frac{40}{x}$.

24. The value of a was substituted into the direct variation
equation; $y = \frac{10}{x}$

25. a.

| Size | 2 | 2.5 | 3 | 5 |
|-----------------|------|------|------|------|
| Number of songs | 5000 | 4000 | 3333 | 2000 |

b. The number of songs decreases.

26. $P = \frac{154.8}{A}; 2.58 \text{ lb/in.}^2$

27. $A = \frac{26,000}{c}; \text{about } 321 \text{ chips per wafer}$

28. direct variation; The points lie on a line.

29. yes; The product of the number of hats and the price per hat is \$50, which is constant.

30. about 190.4 lb