

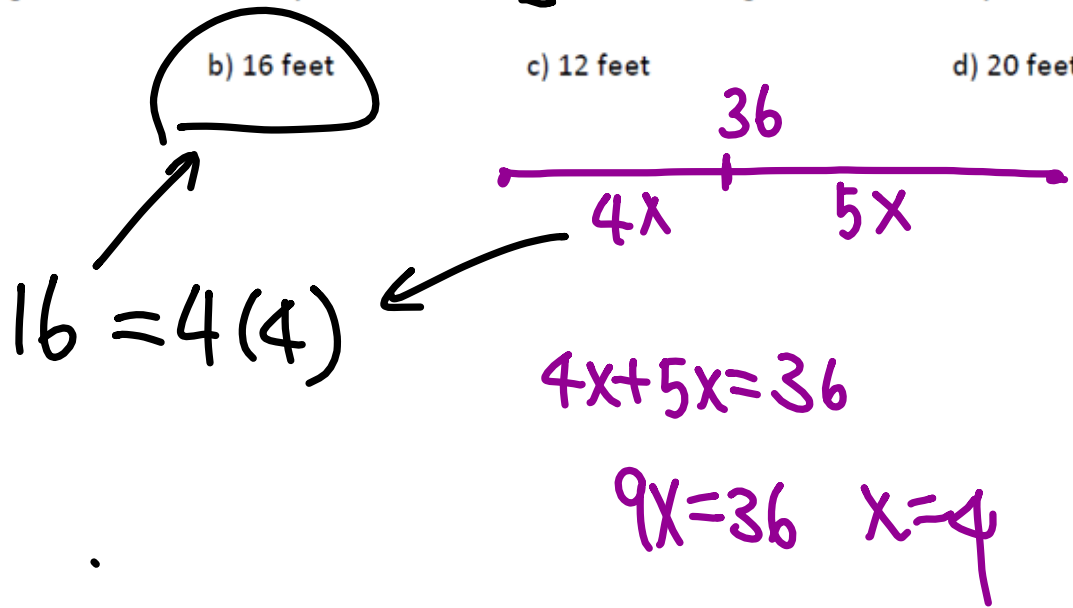
27. A 36 foot long tube is cut into two pieces with ratio 4:5. Find the length of the shorter piece.

a) 9 feet

b) 16 feet

c) 12 feet

d) 20 feet



28. A large square pizza has 49 pieces (square slices). John, Jack and Jane ate all the pieces in the ratio 4:2:1 respectively. How many pieces did Jack eat?

a) 10 pieces

b) 12 pieces

c) 14 pieces

d) 18 pieces

$$4x + 2x + x = 49$$

$$7x = 49$$

$$x = 7$$

$$2x = 14$$

29. Solve: $\sqrt{1-2x} + 1 = 3$

a) $x = 0$

b) $x = -\frac{3}{2}$

c) $x = -1$

d) $x = \frac{1}{2}$

$$\sqrt{1-2x} = 2$$

$$1-2x = 4$$

$$\frac{-2x = 3}{-2} \quad \frac{3}{-2}$$

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

30. Solve for V given $r = \sqrt{\frac{V}{\pi h}}$

a) $V = \sqrt{\frac{r}{\pi h}}$

b) $V = \frac{\pi h}{r^2}$

c) $V = \pi h r^2$

d) $V = r\sqrt{\pi h}$

$$r^2 = \frac{V}{\pi h}$$

$$V = \pi r^2 h$$

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31. Find the equation of the straight line passing through the points (2,-4) and (1,0).

a) $y = -4x + 4$

b) $y = 4x - 4$

c) $y = 4x + 4$

d) $y = -4x - 4$

$$y = -4x + b$$

$$0 = -4(1) + b$$

$$0 = -4 + b$$

$$4 = b$$

$$m = \frac{0 - (-4)}{1 - 2} = \frac{4}{-1} = -4$$

$$y = -4x + 4$$

32. Determine the x and y intercepts of the graph of $7x - 5y = 35$

a) (5, 0) and (0, -7)

b) (-5, 0) and (0, 7)

c) (-5, 0) and (0, -7)

d) (5, 0) and (0, 7)

x-int
(y=0)

$$7x - 0 = 35 \rightarrow (5, 0)$$
$$x = 5$$

y-int
(x=0)

$$0 - 5y = 35$$
$$y = -7 \rightarrow (0, -7)$$