

Chiles Mini Mu 2008

Pix-Algebra

The Cat in the Hat - Four w/ Mac/M

1. 50261  
C)

2.  $3 \times 2 \times 1 = 6$   
B) 6

3.  $[ (3-5)(4-3.5) ]^2 - 1$   
 $[ (-2)(.5) ]^2 - 1$   
 $(-1)^2 - 1$   
 $1 - 1$   
0

C) NOTA

4. 1427 is the only answer choice  
not divisible by 27  
C) 1427

5. a) NO

6. 
$$\begin{array}{r} 36.9 \\ 5 \overline{) 184.5} \\ \underline{15} \phantom{.5} \\ 34 \phantom{.5} \\ \underline{30} \phantom{.5} \\ 45 \phantom{.5} \\ \underline{45} \\ 0 \end{array}$$

C) 36.9

7. The height of Thing 2 is  $2x$  ft.

$$\frac{3}{4}x + 6 = 8$$

$$(\frac{3}{4}x = 2) \frac{4}{3}$$

$$x = \frac{8}{3}$$

$$2x = 2(\frac{8}{3})$$

$$= \frac{16}{3}$$

$$= 5\frac{1}{3}$$

$$C) 5\frac{1}{3} \text{ ft.}$$

8.  $V = \frac{1}{3}\pi r^2 h$   
 $= \frac{1}{3}\pi (1 \text{ m.})^2 (3 \text{ m.})$   
 $= \frac{1}{3}\pi (1 \text{ m}^2)(3 \text{ m.})$   
 $= 1\pi \text{ m}^3$

$$b) 1\pi \text{ m.}^3$$

9.  $-4x - 23 > 17$   
 $-4x > 40$   

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 $-4$

$$x < -10$$

$$-10 = -10$$

$$a) -10$$

10.  $C = 2\pi r$   
 $= 2(5)\pi \text{ ft.}$   
 $= 10\pi \text{ ft.}$

$$5C = 5(10\pi \text{ ft.})$$

$$C) 50\pi \text{ ft.}$$

$$11. C = \frac{1}{2}(2+4)(4) = \frac{1}{2}(6)(4) = 5$$

$$A = 2$$

$$T = \{2, 3, 5, 7, 11, 13, 17, 19\}$$

$$= 8$$

$$CAT = (5)(2)(8)$$

$$= 80$$

e) NOTA

$$12. (2^6)(2^6) = 2^{24}$$

$$6+6=24$$

$$C = 18$$

d) 18

$$13. (5^A)^3 = 5^{12}$$

$$A \times 3 = 12$$

$$A = 4$$

a) 4

$$14. -(-4T + 20) - (2T - 4) = -2$$

$$(4T - 20) - (2T - 4) = -2$$

$$4T - 20 - 2T + 4 = -2$$

$$2T - 16 = -2$$

$$2T = 14$$

$$T = 7$$

b) 7

15. 1 only has one factor

a) 1

$$16. 210x^7y^{10} = 2 \cdot 3 \cdot 5 \cdot 7 \cdot x^7 \cdot y^{10}$$

$$360x^3y^{13} = 2^3 \cdot 3^2 \cdot 5 \cdot x^3 \cdot y^{13}$$

$$GCF = 2 \cdot 3 \cdot 5 \cdot x^3 \cdot y^{10}$$

d)  $30x^3y^{10}$

$$\begin{aligned} -4.5 + 2.3x &= 2.4 \\ 2.3x &= 6.9 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \frac{3}{5}y - \frac{2}{3} &= \frac{8}{15} \\ \frac{9}{15}y - \frac{10}{15} &= \frac{8}{15} \\ \left( \frac{9}{15}y = \frac{18}{15} \right) \frac{15}{9} & \\ y &= \frac{18}{9} \\ y &= 2 \end{aligned}$$

$$x + y = 3 + 2$$

a) 5

$$\frac{3 \cdot 2 \cdot 1}{4 \cdot 3 \cdot 2 \cdot 1}$$

a)  $\frac{1}{4}$

$$9. \left( 5h + \frac{a}{2} - \frac{t}{2} = 6 \right) 12$$

$$10h + a - \frac{t}{2} = 12$$

$$10h = 12 - a + \frac{t}{2}$$

$$h = \frac{12 - a + \frac{t}{2}}{10}$$

d)

$$c) 11^0 = 1$$

c) NOT A

$$\frac{8!}{6!} = \frac{8 \cdot 7 \cdot \cancel{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}}{\cancel{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}} = 8 \cdot 7$$

$$\frac{7!}{6!} = \frac{7 \cdot \cancel{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}}{\cancel{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}} = 7$$

$$\frac{8 \cdot 7}{7}$$

d) 8

$$2 \quad V = (3 \text{ ft})(2 \text{ ft})(4 \text{ ft})$$

d)  $24 \text{ ft.}^3$

$$3 \quad SA = 2(3 \text{ ft} \times 2 \text{ ft}) + 2(3 \text{ ft} \times 4 \text{ ft}) + 2(2 \text{ ft} \times 4 \text{ ft})$$

$$= 2(6 \text{ ft.}^2) + 2(12 \text{ ft.}^2) + 2(8 \text{ ft.}^2)$$

$$= 12 \text{ ft.}^2 + 24 \text{ ft.}^2 + 16 \text{ ft.}^2$$

d)  $52 \text{ ft.}^2$

4 all the numbers except 21 are multiples of 4

d) 21

$$5 \quad \frac{1}{2}(6 \text{ in})(4 \text{ in}) = \frac{1}{2}(24 \text{ in}^2) = 12 \text{ in}^2$$

$$12 \text{ in}^2 = \frac{1}{2}(3 \text{ in} + b) 3 \text{ in}$$

$$24 \text{ in}^2 = 3 \text{ in}(3 \text{ in} + b)$$

$$8 \text{ in} = 3 \text{ in} + b$$

$$b = 5 \text{ in.}$$

b) 5

$$6 \quad 2^3 = 8 \quad 3^2 = 9 \quad 5^1 = 5$$

$$8 \times 9 \times 5$$

d) 360

$$7 \quad \frac{24 \text{ hours}}{1} \times \frac{60 \text{ min.}}{1 \text{ hour}} \times \frac{60 \text{ sec.}}{1 \text{ min.}}$$

$$24 \times 60 \times 60 \text{ sec.}$$

c) 86400

8. Thing 1:  $2(5 \text{ min}) = 10 \text{ min}$   
Thing 2:  $3(3 \text{ min}) = 9 \text{ min}$   
 $10 \text{ min} - 9 \text{ min} = 1 \text{ min}$   
a) 1 min.

29.  $28 \times 5 = 140$

c) 28

0. 
$$\begin{array}{r} 19 \quad 10 \\ 2108 \\ - 1957 \\ \hline \end{array}$$

51  
b) 51