

Egao Winter 2007

(#1)  $\frac{2^{400}}{2^{396}} - 2^3$

$$= 2^4 - 2^3$$
$$= 16 - 8 = \underline{\underline{8}}$$

answer letter (D)

(#5)  $10.25x + 0.035y = 150$   
x = hours worked  
y = weekly sales.

if  $x = 12$  then solve for y.

$$10.25(12) + 0.035y = 150$$

$$123 + 0.035y = 150$$

$$0.035y = 150 - 123$$

$$0.035y = 27$$

$$y = \frac{27}{0.035} = \underline{\underline{\$771.43}}$$



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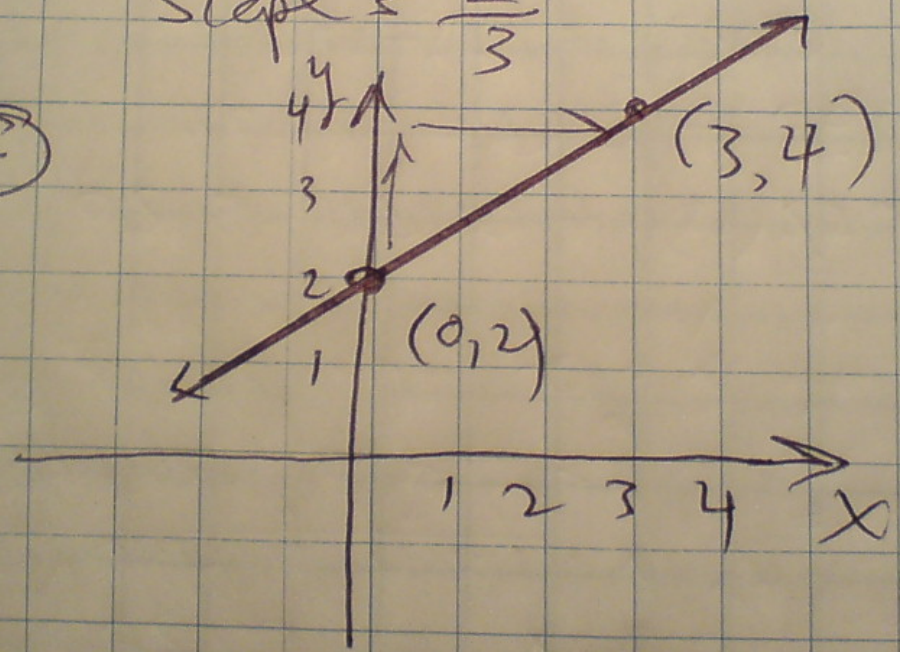
#14 Which graph represents the relation

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

y-intercept (0, 2)

Slope =  $\frac{2}{3}$

(F)





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(#17) Line A:  $b=5$   $m=\frac{1}{2}$

$$y = \frac{1x}{2} + 5$$

Line B:  $b=5$   $m=\frac{1}{4}$

$$y = \frac{1x}{4} + 5$$

if  $x=500$  then solve for "y".

(A)

$$y = \frac{500}{2} + 5$$

$$y = 255$$

(B)

$$y = \frac{500}{4} + 5$$

$$y = 130$$

$\therefore$  It will cost \$125 more to print in colour.



Eggs Winter 2007

(#19) → lateral surface area (wall)  
and floor (bottom)

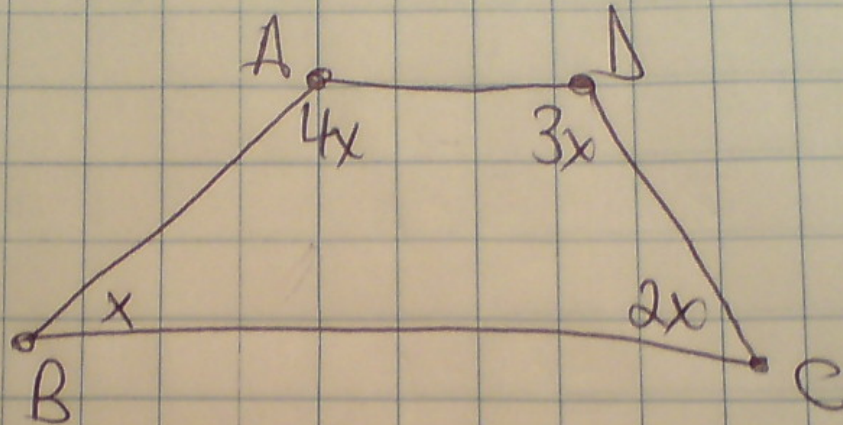
$$SA = \pi r^2 + 2\pi r h$$

letter D  $(\pi(20)^2 + 2\pi(20)(50)) \text{ cm}^2$



Exam Winter 2007

#20



$$360 = x + 4x + 3x + 2x$$

$$\frac{360}{10} = \frac{10x}{10}$$

$$x = 36^\circ$$

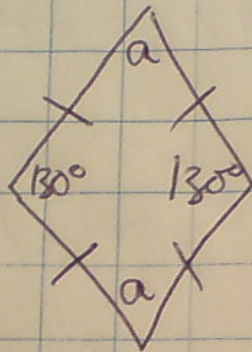
$$\angle BAD = 4x = 4(36) = 144^\circ$$

letter J.



Egas Winter 2007

#22



$$360^\circ - 130^\circ - 130^\circ = 100^\circ$$

$$2a = 100^\circ$$

$$a = 50^\circ$$

No, it is not possible, because the eight pieces rotate  $360^\circ$  in the eight pointed star but her pieces would rotate  $50^\circ \times 8 = \underline{\underline{400^\circ}}$ . This would have overlaps and not a complete  $360^\circ$  rotation.