

C 1. 26 is 17% of what

$$26 = .17 \cdot x$$

$$x = 152.94$$

C 6.  $30/36$  or 83%

x 7.  $35/36$

C 2. can afford monthly of \$620  
25 year loan } 6.44  
6% interest rate

$$620 \div 6.44 \approx 96$$

so  
 $\$96,000$

C 3.  $620 \cdot 12 \cdot 25 = \$186,000$

C 4.  $186,000 - 96,000 = \$90,000$

C 5. 23 servings requires 9 lbs of carrots  
yield % 81%

Serving 117

$$117 \div 23 = 5.1$$

$$9 \cdot 5.1 \div .81 \approx 56.7 \text{ pounds of carrots}$$

$$56.7 \cdot .53 \approx \$30.05$$

C 8.

score	%	expected value
57	18	10.26
77	20	15.4
67	12	+ 8.04
60	14	8.4
	36	31.9
		42.1

$$74 - 42.1 = 31.9$$

$$31.9 \div .36$$

$$88.61\%$$

9. what is 88.61% of 40

$$x = .8861 \cdot 40$$

35 questions

round up here, unusually

10. Food Cost % method

$$\text{cost per plate} = \frac{26}{6} = .4333 \div 6$$

\$12.75

Desired Profit Method

$$\text{cost per plate} = (26 + 30 + 22) \cdot 1.12 \div 6$$
$$78 \cdot 1.12$$
$$87.36 \div 6$$

\$14.56

11. wholesale of 18%  
C buys it for \$20

$$20 \cdot (1 + .18) = \$23.60$$

12. retail selling 28%  
C can sell for \$401

$$401 \cdot (1 - .28) =$$
$$.72 = \$288.72$$

13. sells for \$25  
on sale for 20%  
then 21%

20

$$25 \cdot .2 = 5$$
$$25 \cdot .21 = 5.25$$

\$15.80

20.21

14. 1<sup>st</sup> 2 discounts 14% 6% 10% 77%  
C single equivalent discount rate 23%

$$.86 \cdot .94 \cdot x = .77$$

$$\frac{.8084 \cdot x = .77}{.8084 \quad .8084}$$

$$x = .95$$

5%



# Group Work

15.  $8,008.50 \cdot .05 \cdot (325 \div 365)^I$   
 $.89$

C

$$8008.50 \cdot .05 \cdot .89$$
$$\boxed{\$356.38}$$

16.  $6446.91 - 6117$   
 $329.91$

C

$$329.91 = 6117 \cdot x \cdot (120 \div 365)$$
$$6117 \cdot x \cdot .32$$

$$\frac{329.91}{1957.44} = \frac{1957.44 \cdot x}{1957.44}$$

$$.17$$
$$\boxed{17\%}$$

17. change  $\div$  original amount

C

$$100 \cdot .07 = 7$$

$$107$$

$$.07 \div 1.07 = .0654$$

$$\boxed{6.54\%}$$

$$107 \div$$

C

18.  $420 \div 433$   
 $.96 = \boxed{4\%}$

$620 \div 633$   
 $.97 = \boxed{3\%}$

different method  
but legit

yes  $\uparrow$

Apartment A

19.

$$6117 \cdot (1 + .16)^{10}$$

$$.16 \div 12 = .013$$

C

$$6117 \cdot (1 + .013)^{10}$$

$$6117(1.013)^{10}$$

$$6117 \cdot 1.14$$

$$\boxed{\$6,973.38}$$

20.

$$621 \cdot 1.05^6 = \boxed{\$832.20}$$

C

22.

$$2) 4154.46 / 3,249.46 / 64.89$$

C

$$5) 1568.09 / 658.09 / 13.16$$

$$\text{total} = \boxed{\$2,308.25}$$

Answer to 17c

17c 201