Quiz 2

Name: Brandy Rodriguez **Perm Number:** 6565634

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$

$\frac{1}{20^{-1}(12^{-1}+18^{-1})^{-1}}$

$20^{-1}(30^{-1})^{-1}$ $\frac{1}{20(30)}$ $\frac{1}{600}\times 100\% =$ $\frac{1}{6}$

30 × 20 = 600

600

20 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4+1

x^4-1

x^4-1

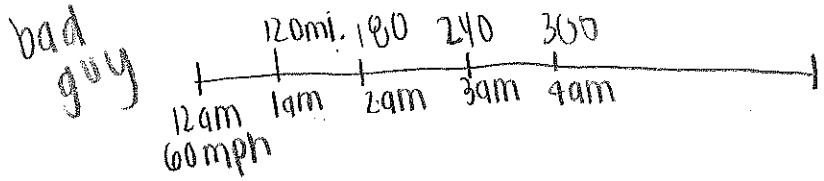
3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

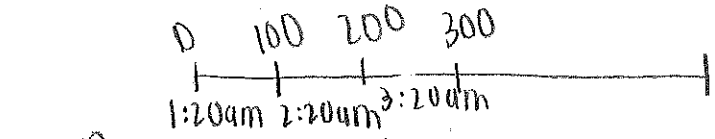
2 4 1
14a ×5 = 70 ; 28 ×5 = 140 ; 14 ×3 = 42

$\frac{1}{4} \times \frac{2}{8}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



1am 1:20am
120mi 130mi



1:20am 1:28am
100mi 132mi

4:20
300mi

4x8=32

4:

Quiz 2

Name: Sebastian Avila **Perm Number:** 5976220

1) Simplify the expression below and write it as a percent.

$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$

$\frac{1}{20}\cdot\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

12+18 12 +18 30

$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$ $\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ (12+18)

$\frac{1}{20}(12+18)$

$\frac{1}{20}(30)$ $\frac{30}{20}=1\frac{1}{2}=150\%$

$\frac{3}{2}=150.00\%$

100 × 1.5 = 500 + 100 = 150.0

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{(5-3b)}{2}\left(\frac{14a-28b}{7}\right)$$

$$\frac{70a-140b-42ab+84b^2}{14a}$$

$$\left(\frac{5-3b}{2}\right)\left(\frac{2a-4b}{1}\right)$$

$$5a-10b-3ab+6b^2$$

$$\frac{10a-20b-6ab+12b^2}{2} = 5a-10b-3ab+6b^2$$

$$\boxed{5a-10b-3ab+6b^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

T	BG	JB
12	0	0
1	60	0
1:20	80	0
2	120	66.67
3	180	166.67
4	240	266.67

3:40 220 3:40 233.34

3:20 200 3:20 200

$$\boxed{3:20\text{AM}}$$

Quiz 2

Name: Stephane Mita **Perm Number:** 8038481

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}(30) = \frac{30}{20} = \frac{3}{2} = 1.5$$

$$0.05 \cdot (30) = 1.5 \times 100\% = 150\%$$

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$$

$$x^4 - 1$$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\left(\frac{a(5-3b)}{2a}\right)\left(\frac{14(a-2b)}{7}\right)$$

$$(5-3b)(a-2b)$$

$$5a-10b-3ab-6b^2$$

$$5(a-2b)-3(ab-2b^2)$$

$$\boxed{5(a-2b)-3(ab-2b^2)}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$\frac{20}{60} : \frac{1}{3}$

60 miles + 20 miles = 80 miles @ 1:20

$\frac{1}{3} \times \frac{60}{1} : 20$

2:20 Am J = 100 miles

2:20 Am BG = 140 miles

150

170

3:20 200 miles

3:20 = 200 miles

$$\boxed{3:20\ AM}$$

Quiz 2

Name: Alicia Cabral **Perm Number:** 6606030-2

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20} \cdot \frac{5}{5} = \frac{5}{100}$

$1/20\,(-12 + -18)^{-1}$

$\frac{1}{20}(-20)^{-1}$

$\frac{1}{20}(20)$

$\frac{1}{20} = \frac{5}{100}$

$\frac{5}{100} \cdot \frac{(20)}{1} = \frac{100}{100} = 1$

5% of 20

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$(x+1)(x^2+1)$

$x^3 + x + x^2 + 1$

$(x-1)(x+1)(x^2+1)$

$x^2 + x - x - 1$

$(x^2-1)(x^2+1) = 2x^2 + x^2 - x^2 - 1$

$2x^2 - 1$

$2x^2 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

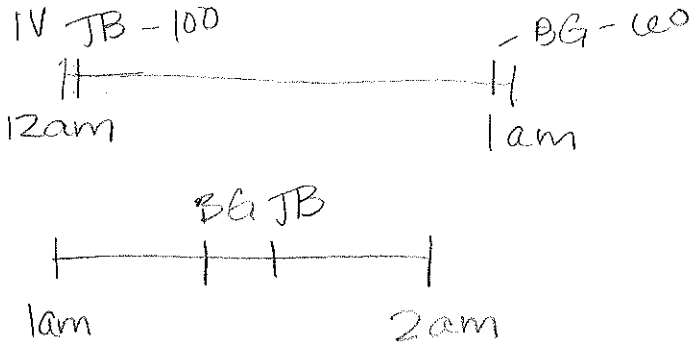
$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{(5a-3ab)}{2a} \cdot \frac{(2a-4b)}{1} = \frac{10a+12ab}{2a}$$

$$= 5+6b$$

$5+6b$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



1:00 AM

Quiz 2

Name: Natalie "Nat" Alvarez Perm Number: 6022337

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$$

$\frac{1}{20}(30^{-22\cdot-1})^{-1}$

$-12-18$

$\frac{1}{20}(-30)^{-1}$

$\frac{1}{20}(30)$

$\frac{1}{20}\cdot\frac{30}{1}=60?$

Inac 0 clue

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

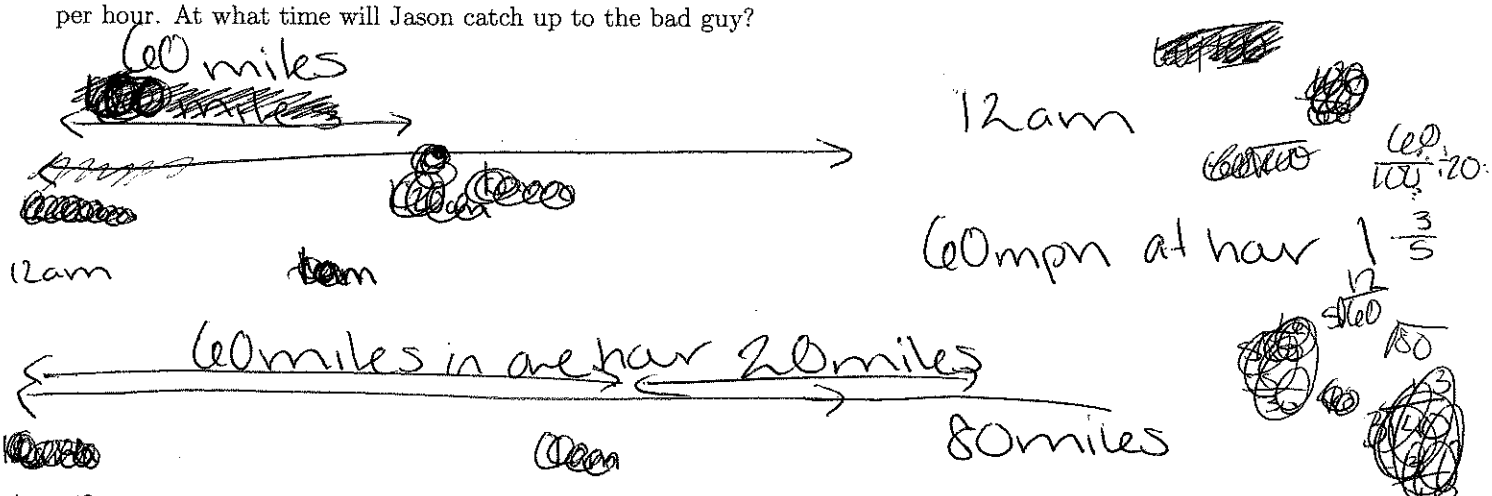
x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



1:20 + 48 = 2:08

in twenty minutes he makes it another 20 miles, so he's 80 miles away

at 1:50 he's 100 miles on hour

2:08??

gone 80 miles out of 80

Quiz 2

Name: Nissa Aguinigoa **Perm Number:** 6646624

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{1}{\frac{1}{12}+\frac{1}{18}}\right)$

$20\,(12+18)$

$20\,(30)$

600

6%

6%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$(x-1)(x^3+x^2+x+1)$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$

$5a \cdot 28b$

$\frac{70a-(5a\cdot 28b)}{2a\cdot 7}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12:00 → 60 mph

1:20 → 100 mph

12:00	60
1:00	120
1:20	140

12:00 − 1:00 60

1:00 − 1:20 80

1:40 100 mi

1:20 100

$y = 12 + 60x$

$y = 1\frac{1}{3} + 100x$

$1\frac{1}{3} + 100x = 12 + 60x$

$-60x \quad -60x$

$1\frac{1}{3} + 40x = 12 - 1\frac{1}{3}$

$-1\frac{1}{3} \quad 40x = 11\frac{1}{3}$

$\frac{40x}{40} = \frac{11\frac{1}{3}}{40}$

$x = \frac{17}{60}$

17

$11\frac{1}{3} \div \frac{40}{1}$

$\frac{34}{3} \times 40$

$\frac{34}{3} \cdot \frac{1}{40} \quad \frac{34}{120} \quad \frac{17}{60}$

Quiz 2

Name: C'hret Lindsey **Perm Number:** 6361232

1) Simplify the expression below and write it as a percent.

$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$

$(-12-18)$ 6

$.2 \cdot 6$ $+.2$

$.8$

80%.

2) Multiply out and simplify. writing the simplified answer in the box.

$(x-1)(x^3+x^2+x+1)$

$x^4+x^3+x^2+x-1x^3-x^2-x-1$

x^4-x^2-x-1

x^4-x^2-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)\div 7$$

$\frac{2a-4b}{1}$

$\left(\frac{5a+3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)\cdot 7$ $\frac{2a-4b}{1}$

$10a -$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

60 mph 12 am

80 mins behind

100 mph 1:20 am

2:40 am

Quiz 2

Name: Katelyn Cole **Perm Number:** 9782947

1) Simplify the expression below and write it as a percent.

$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}(12+18)$

$\frac{1}{20}\left(\frac{30}{1}\right)=\frac{30}{20}=1.5=150\%$

$$\begin{array}{r} 18 \\ +12 \\ \hline 30 \end{array}$$

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$(x-1)(x^3+x^2+x+1)$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

$(x^2-1)(x^2+1)$

$(x^2-1)(x^2+1)$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{(70a^2-140ab)(-42a^2b+84ab^2)}{14a}$$

$$\frac{70a(a-2b)-42ab(a-2b)}{14a}$$

$$\frac{(70a-42ab)(a-2b)}{14a}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$\frac{60 \text{ miles}}{1 \text{ hr}}$ $\frac{100 \text{ miles}}{1 \text{ hr}}$

1 am → 60 miles away
2 am → 120 miles away
3 am → 180 miles away

1:20 → 100 miles
2:20 → 200 miles

3 am

Quiz 2

Name: emily cohen **Perm Number:** 5022949

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$= \frac{1}{20}\left(\frac{1}{\frac{1}{12}+\frac{1}{18}}\right)$$

$$= \frac{1}{20}\left(\frac{1}{\frac{3}{36}+\frac{2}{36}}\right)$$

$$= \frac{1}{20}\left(\frac{1}{\left(\frac{5}{36}\right)_9}\right)$$

$$= \frac{1}{5}\left(\frac{1}{\left(\frac{5}{9}\right)}\right)$$

$$= \frac{1}{5}\left(1 \div \frac{5}{9}\right)$$

$$= \frac{1}{5}\left(1 \cdot \frac{9}{5}\right)$$

$$= \frac{9}{25} \rightarrow \frac{36}{100}$$

36 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4+x^3+x^2+x-x^3-x^2-x-1$$

$$= x^4-1$$

x^4-1

3) Multiply out and simplify writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$= \left(\frac{5-3b}{2}\right)\left(\frac{14a-28b}{7}\right) \rightarrow \frac{(5-3b)(2a-4b)}{2}$

$10a - 20b - 6ab + 12b^2$

$= (5-3b)(a-2b)$

$= 5a - 10b - 3ab + 6b^2$

$5a - 10b - 3ab + 6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

60 + 20 = 80 min

60 mph → 12:00 AM

↓ 20 mi traveled

100 mph 1:20 AM

100 − 60 = 40

$\frac{80 \text{ min}}{20 \text{ mi}} = \frac{x}{}$

1:40 AM

Quiz 2

Name: Zihu Zhu Perm Number: 5381462

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20} \times \left(\frac{1}{12} + \frac{1}{18}\right)^{-1}$$

$$= \frac{1}{20} \times \left(\frac{3}{36} + \frac{2}{36}\right)^{-1}$$

$$= \frac{1}{20} \times \frac{36}{5}$$

$$= \frac{9}{25}$$

$$= 36\%$$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$= x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$$

$$= x^4 - 1$$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$= \frac{5-3b}{2} \times (2a-4b)$$

$$= (5-3b) \times (a-2b)$$

$$= 5a - 10b - 3ab + 6b^2$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

The distance between them when Jason Borne leaves Isla Vista:

$$60 \text{ miles/h} \times 1\text{h} + 60 \text{ miles/h} \times \frac{20\text{mins}}{1\text{h}}$$

$$= 60 \text{ miles} + 20 \text{ miles}$$

$$= 80 \text{ miles}$$

the speed subtraction between them: $100\text{miles/h} - 60\text{miles/h} = 40\text{miles/h}$

Time: $\frac{80 \text{ miles}}{40\text{miles/h}} = 2\text{hours}$

Answer: the time is 3:20 AM.

Quiz 2

Name: Miliani Reyes-Benitez **Perm Number:** 3954120

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{12^{-1}+18^{-1}} \qquad \frac{1}{12^{-1}}$$

$$\frac{1}{20}\left(\frac{1}{12+18}\right) \qquad \frac{1}{\frac{1}{12}}$$

$$\frac{1}{20}\left(\frac{1}{30}\right)$$

$$\frac{1}{60} = \frac{1}{100}$$

.6 %.

.6

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x + 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$70a^2 - 140ab - 42a^2b + 84ab^2$

$14a$

$10a^2 - 20ab - 6a^2b + 14ab^2$

$2a$

$10a - 20ab - 6a^2b + 14ab^2$

2

$5a - 10ab - 3a^2b + 7ab^2$

$5a-10ab-3a^2b+7ab^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

1V

12

60 mph

1:20 am

100 mph

2

120 mi

2

160 mi

1:45

105

1:45

125

Quiz 2

Name: Anahi Pimentel **Perm Number:** 4205688

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{100}{20}\left(\frac{-100}{12}-\frac{100}{18}\right)$

$5\left(\frac{-25}{3}-\frac{50}{9}\right)$

$\frac{25}{\times\ 5}$
125

$-\frac{125}{3}-\frac{25}{9}$

$-\frac{125}{3}-\frac{25}{9}$

2) Multiply out and simplify. writing the simplified answer in the box.

$(x-1)(x^3+x^2+x+1)$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)\cdot 7$$

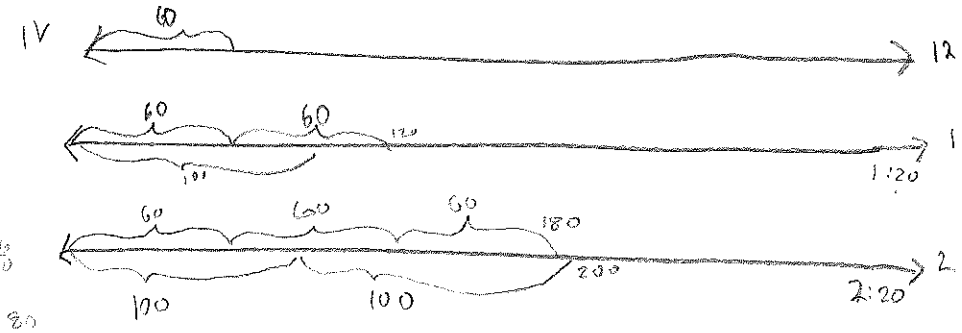
$$2a(5a-3ab)\cdot 7(14a-28b)$$

$$(10a-6a^2b)(98a-196b)$$

$$980a^2-1960ab-588a^3b-1176a^2b^2$$

$980a^2-1960ab-588a^3b-1176a^2b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:08 am

Quiz 2

Name: Crystal Mendoza Perm Number: 4138483

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$= \frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$= \frac{1}{20}(12+18)$

$= \frac{1}{20}(30)$

$= \frac{30}{2} = 15$

15

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$= x^4+x^3+x^2+x-x^3-x^2-x-1$

$= x^4-1$

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\Rightarrow \left(\frac{\cancel{2}\cancel{a}(5-3b)}{2\cancel{a}}\right)\left(\frac{14(a-2b)}{7}\right)$$

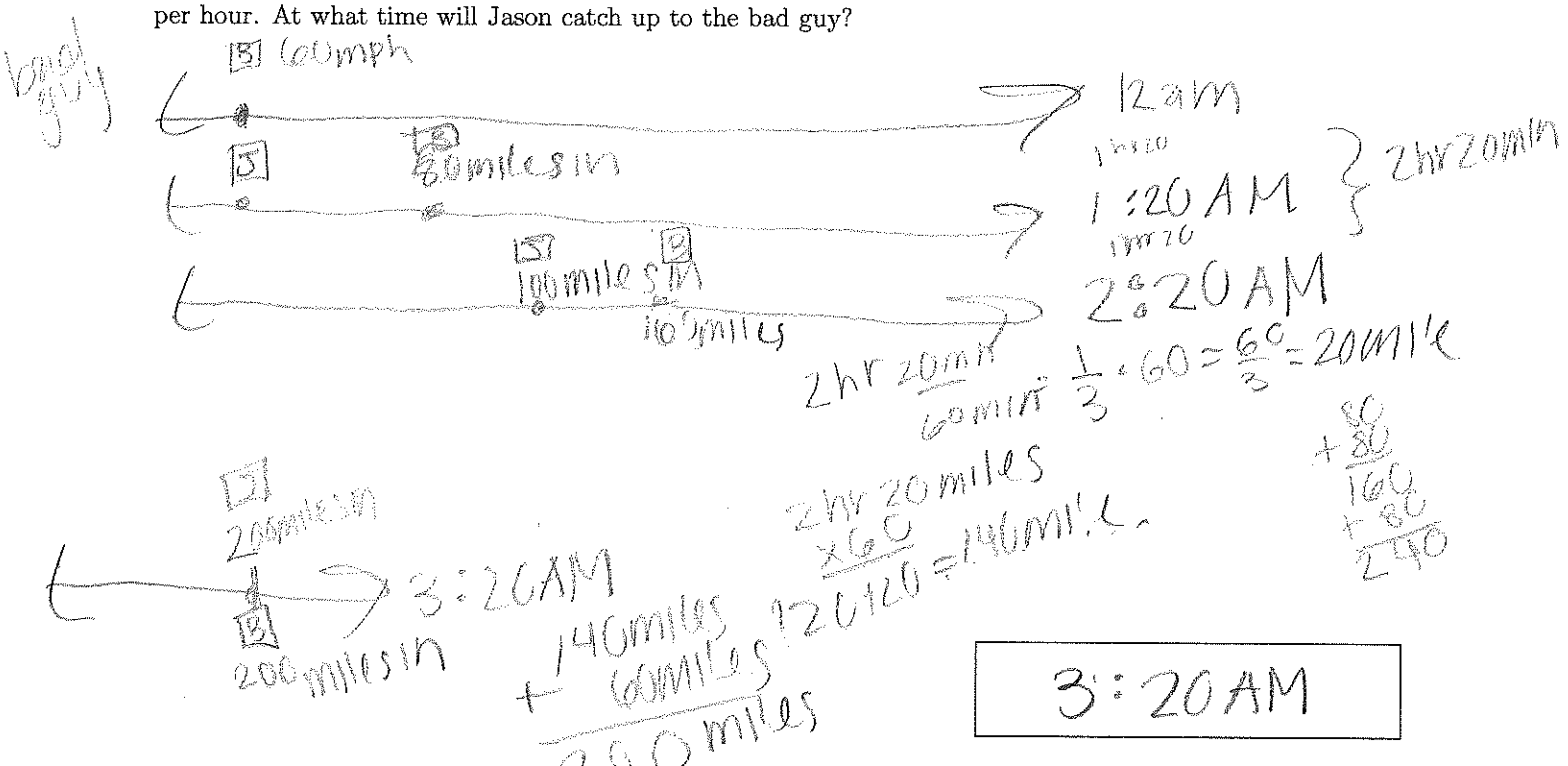
$$\Rightarrow \left(\frac{(5-3b)}{2}\right)\left(2(a-2b)\right)$$

$$\frac{(5-3b)}{2}\cdot(2a-4b) = \frac{10a-20b-6ab+12b^2}{2}$$

$$= 5a-10b-3ab+6b^2$$

$$\boxed{5a-10b-3ab+6b^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$$\boxed{3:20\text{AM}}$$

Quiz 2

Name: Myles Kelly **Perm Number:** 5000123

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

.05√(12^-1 + 18^-1)^-1

.05(12+18)

.05(30)

?

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$

$(3a+3ab)(6a-4b)$

	$6a$	$-4b$
$3a$	$6a^2$	$-12ab$
$3ab$	$6a^2b$	$-12ab^2$

$6a^2-6a^2b-12ab-12ab^2$

$6a^2-6a^2b-12ab-12ab^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12am 1:20am

60 60mph 80 mph

1:20 100

100

1:20 1:40 1:50 2:00 2:10

0 20mi 50 80 100

100-80

2:00Am

Quiz 2

Name: Kellen Beckett **Perm Number:** 4794665

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{1}$$

$$\frac{1}{20}\left(\frac{12}{1}+\frac{18}{1}\right)$$

$$\frac{1}{20}\left(\frac{30}{1}\right)$$

$$\frac{30}{20}$$

150 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{a(5-3b)}{a(2)} \quad \frac{7(2a-4b)}{7(1)}$

$35a - 21ab \quad 28a^2 - 56ab$

$4a - 8b = 3 - 3b$

$4a = 5b + 5$

$4a = 5b + 5$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$1^2 = 60$ mph

$1:20 = 100$

$60x = 100x + 120$

1:20	1	80 miles
	2	140
	3	200

0
100
200

3:20 Am

Quiz 2

Name: Colin Gallivan **Perm Number:** 8562735

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{1}{20}(12+18)$$

$$\frac{1}{20}\left(\frac{30}{1}\right) = \frac{30}{20}$$

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

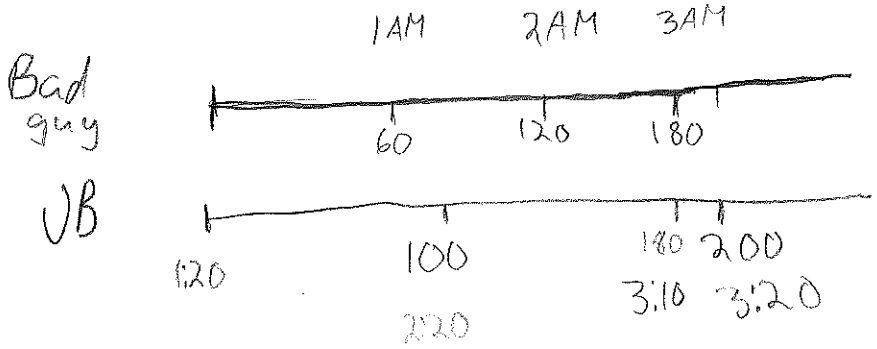
x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$14a$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$60x$ ---

3:20 AM

Quiz 2

Name: Zoey Moody

Perm Number: 4564134

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$1/20\ (30^{-2})^{-1}$

$1/20\ (30^{2})$

$1/20\ (900)$

$\frac{5}{100} \cdot 900$

5% of 900 =

45

$5 \cdot 900 = \frac{4500}{100}$

$100 \overline{)4500}$ 45

4500

50

5% of 900 = 45

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\left(\frac{5a-3ab}{2a}\right)(2a-4b)$$

$$\left(\frac{10a-6a^2b}{4a^2}\right)-\left(\frac{20ab-12ab^2}{8ab}\right)$$

$-6a^2$

$$\left(\frac{5a-3a^2b}{2a^2}\right)-\left(\frac{5ab-3ab^2}{2ab}\right)$$

$$\boxed{\left(\frac{5a-3a^2b}{2a^2}\right)-\left(\frac{5ab-3ab^2}{2ab}\right)}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

1:20 : 0 mi 60 miles

$\frac{20}{60}$: $\frac{1}{3}$ 2:20 : 100 mi. 120 mi

2:

1 mile / per minute

1/3 of 100 : 33 3:20 : 110 mi.

3:00 : 180 mi. 200 mi.

3:15 : 160 mi.

$\boxed{3:15\text{ am}}$

Quiz 2

Name: Christopher Bolin **Perm Number:** 608553-4

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(12+18)$

$\frac{30}{20}=\frac{3}{2}=1.5=150\%$

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$(x-1)(x^3+x^2+x+1)$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{84b^2a+70a^2-140ab-42a^2b}{14a}$$

$$(5a-3ab)(14a-28b)$$

$$50+20$$

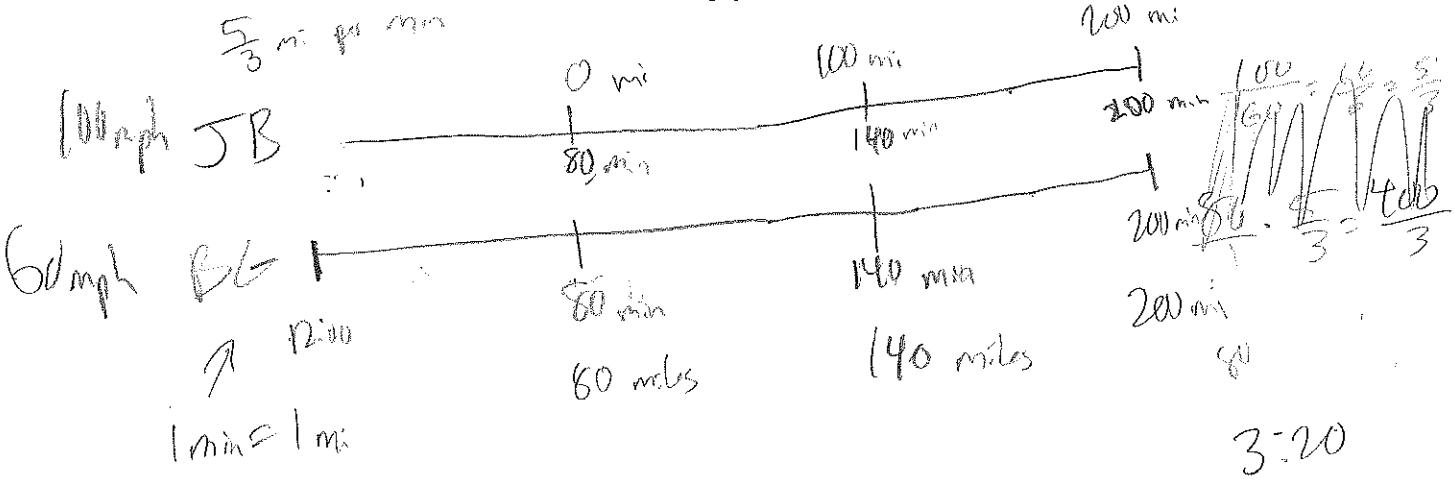
$$\frac{84b^2+70a-140b-42ab}{14}$$

$$84b^2a+70a^2-140ab-42a^2b$$

$$6b^2+5a-10b-3ab$$

$$\boxed{6b^2+5a-10b-3ab}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$$\boxed{3:20\ \text{A.M.}}$$

Quiz 2

Name: Hidei Spanke **Perm Number:** 5958525

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

12+18

$\frac{1}{20} \cdot \frac{30}{1}$

60

3 x 180

540

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$2a(14a-28b)$

$28a^2 - 56ab$

$(5a-3ab)(14a-28b)$

$28a^2+35a-77ab$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12am at 60mph

1:20 mins later

IV → 123 miles ahead

+ 40 mph

IV

1:23 mins

123

123

3:05 AM

Quiz 2

Name: Mariah Ford **Perm Number:** 6149893

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(30^{-1})^{-1}$

$\frac{1}{20} \times \frac{1}{\frac{1}{30}}$

$\frac{1}{\frac{20}{30}}$ $\frac{1}{2/3}$

(1/(2/3)) / 100

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

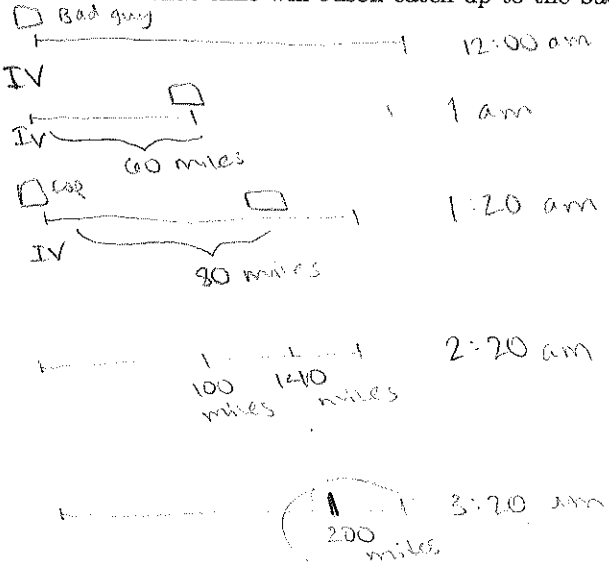
$$\frac{70a + 140ab - 42a^2b - 84ab^2}{14a}$$

$$5a + 140ab - 42a^2b - 84ab^2$$

$$\frac{70}{14} = 5$$

$$\boxed{5a + 140ab - 42a^2b - 84ab^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



1 hour 60 miles
0.5 hour 30 miles
1/3 hour 20 miles
(20 mins)

$$\boxed{3:20 \text{ am}}$$

Quiz 2

Name: Toha Hossain Perm Number: 57574106

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\left(\frac{3}{36}+\frac{3}{36}\right)$

$\left(\frac{6}{36}\right)^{-1}$

$\frac{1}{20}\cdot\frac{36}{6}=\frac{36}{120}\Rightarrow\frac{6}{20}=\frac{3}{10}\cdot 100$

$(12^{-1}+18^{-1})$

30^{-1}

$\left(\frac{1}{30}\right)^{-1}$

$\frac{1}{20}\cdot 30=\frac{30}{20}=\frac{3}{2}$

$\frac{3}{10}\cdot 100 \Rightarrow 30\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right) = \frac{70a^2+140ab-42a^2b+84ab^2}{14a}$$

$$\Rightarrow \left(\frac{35a^2+70ab-21a^2b+42ab^2}{7a}\right)a$$

$$\frac{35a+70b-21ab+42b^2}{7}$$

$$\boxed{\frac{35a+70b-21ab+42b^2}{7}}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

60mph 100mph

$60t = 100(t-1)$

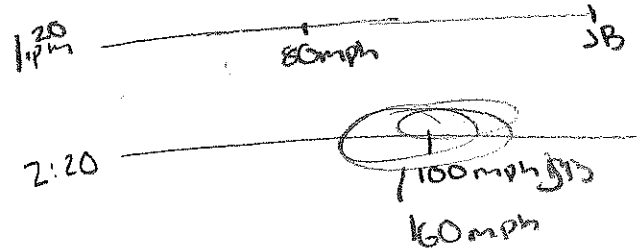
$60t = 100t - 100$

$100t - 60t = 100$

$40t = 100$

$t = \frac{10}{4} \Rightarrow \frac{5}{2}$

$\frac{5}{2} - 1 \Rightarrow \frac{5}{2} - \frac{2}{2} = \frac{3}{2}$



$\approx \frac{3}{2}$

Quiz 2

Name: Vivian de Waart **Perm Number:**

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ $\qquad \frac{1}{12}^{-1} = 12 \quad + \quad \frac{1}{18}^{-1} = 18$

$\frac{1}{20}\left(\frac{30}{1}\right) = \frac{30}{20} = \frac{3}{2}$ $\qquad 30$

$\frac{3}{2} = 1.5$

1.5%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x \rightarrow x^4 + x^3 + x^2 + x$

$-1 \rightarrow -x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$

$\left(\frac{5}{2}-\frac{3b}{2}\right)(2a-4b)$

$\frac{10a}{2}-\frac{20b}{2}$

$\frac{5}{2}\cdot\frac{2a}{1} = 5a - \frac{20b}{2} = 10b$

$-6ab + 12b^2$

$\frac{6ab}{2} - \frac{12b^2}{2}$

$5a - 10b + 3ab$

$+6b^2$

~~$12b^2 - 6ab - 18b + 5a$~~

$6b^2 - 3ab - 10b + 5a$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12 p.m ⟶ 60 mph

1:20 ⟶ 100 mph

$100(t-1.2) = 60t$

$100t - 120 = 60t$

$-100t \quad -100t$

$-120 = -40t$

$t = 3$ hours

3 hours after 12 p.m

Check:

1:00 → 100 miles

200 120 miles

1:20 → 3 - 1:20 =

200 - 120 miles

20 min 2B 100

= 1.20

180 miles ✓ 1.80

3 p.m → 180 miles ✓

60 × 3 hours

~~OR → 2:20~~

3:00 a.m

Quiz 2

Name: Natasha Gavrilaff **Perm Number:** 6773113

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$$

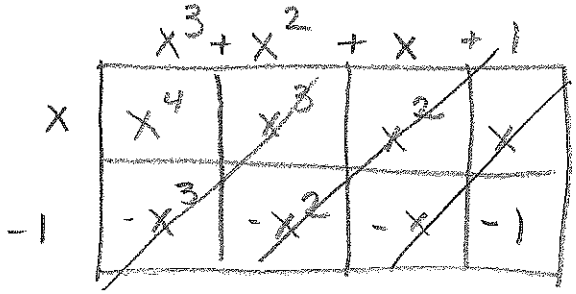
$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{3}{36}+\frac{2}{36}\quad\left(\frac{5}{36}\right)^{-1}\rightarrow\quad\frac{36}{5}\cdot\frac{1}{20}=\frac{36}{100}=$$

36 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$



x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\left(\frac{5}{2}-\frac{3}{2}ab\right)(2a-4b)$$

	$-3/2ab$	$5/2$
$2a$	$-3a^2b$	$5a$
$-4b$	$6ab^2$	$-10b$

$$6ab^2-3a^2b-10b+5a$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

1 hr 20 min ahead

$60+20=80$ mi ahead

x = hours driving since 1:20 am

bad guy = $60x+80=100x$

$-60x \quad -60x$

$\frac{80=40x}{40}$

$2=x$

3:20 am

Quiz 2

Name: Samantha Stevens Perm Number: 5113980

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}(12+18)$

$\frac{1}{20}(30)$

$\frac{1}{20}\cdot\frac{30}{1}$ $\frac{600}{20}=30\%$

30%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

$(x^2+1)(x^2-1)$

$(x^2+1)(x-1)(x+1)$

$(x^2+1)(x-1)(x+1)$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a^2-28b^4}{7}\right)$$

$$\left(\frac{5-3b}{2}\right)\left(\frac{2a-4b}{1}\right)2$$

$$(5-3b)(4a-8b)$$

$$20a-40b-12ab+24b$$

$$10a-20b-6ab+12b$$

$10a-20b-6ab+12b$

12 am

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

In 1 hr → 60 miles

60 miles / 60 mins = 10 miles per min

12 → 1 → 2 → 3 → 4
60 miles 120 180 240

1:20 → 2:20 → 3:20 → 4:20
100 m. 200 m. 300 m.

2:10 2:20 2:30 2:40 2:50 3:00 3:10 3:20
130 140 150 160 170 180 190 200

3:20 am

Quiz 2

Name: Max Levin Perm Number: 4984886

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

30^{-1} -30^{-1} $30 \cdot \frac{1}{30} = 1$

$-12 \quad -18$

$\frac{1}{20}(-30)^{-1}$

$\frac{1}{20} \cdot \frac{30}{1}$ $\frac{30}{20} \rightarrow 1.50$ or 150%

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+1x$

$-1x^3-x^2-1x-1$

x^4-1

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{70a^2-140ab-42a^2b+84ab^2}{14a}$$

$$\frac{70a-140b-42ab+84b^2}{14}$$

$$5a-10b-3ab+6b^2$$

$$\boxed{5a-10b-3ab+6b^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$$x|40 = y60+20$$

$$\boxed{3:20\ AM}$$

Quiz 2

Name: Graham Allison **Perm Number:** 4772448

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(12+18)$

$\frac{1}{20}(30)$

$1.5 \Rightarrow \left(\frac{1.5}{100}\right)30 = (0.015)(30)$

4.5

x 30

1.5

4.5%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

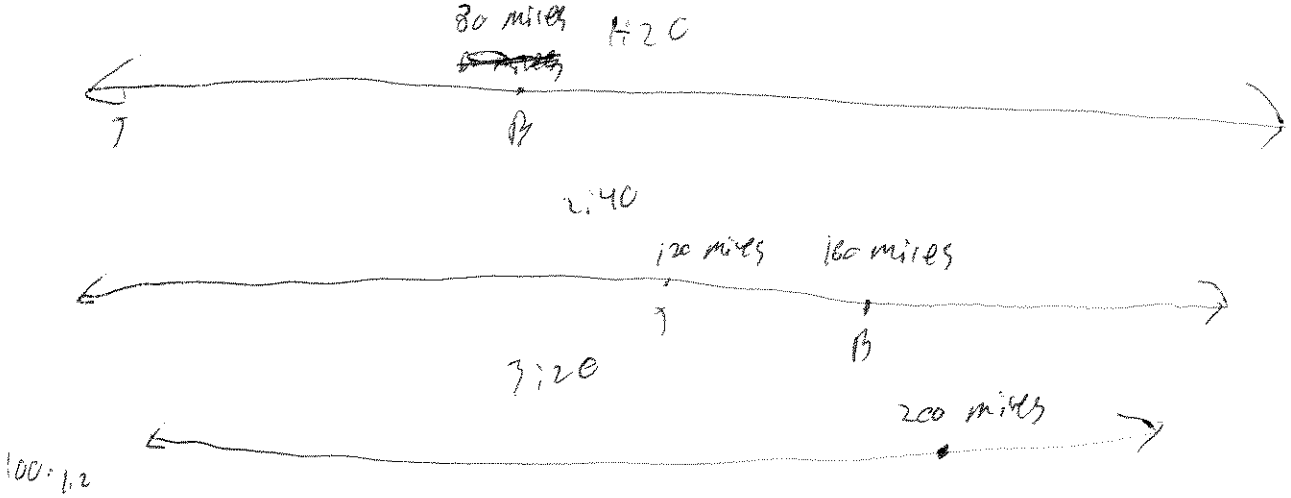
$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)\left(\frac{2a-4b}{1}\right)$

~~$(5a-3ab)(2a-4b)$~~ $(5a-3ab)(-4b)$

$(5a-3ab)(-4b)$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



7:20

Quiz 2

Name: Ray Hernandez **Perm Number:** 5714902

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ 18, 36, 54, 63

$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)$

$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{36}{5}\right)$ $\frac{36}{100}$

36 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + \cancel{x^3} + \cancel{x^2} + \cancel{x} - \cancel{x^3} - \cancel{x^2} - \cancel{x} - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

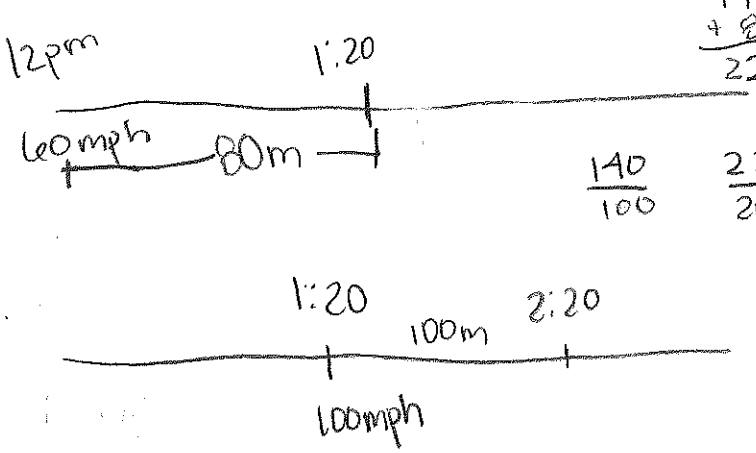
$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$70a - 140ab - 52a^2b + 84ab^2$

$14a$

5a-140b-52a²b+84ab²

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



4:20 AM

Quiz 2

Name: Sophia Pan **Perm Number:** 6463467

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$= \left(\frac{1}{20}\right)\left(\frac{6+4}{72}\right)^{-1}$$

$$= \left(\frac{1}{20}\right)\left(\frac{10}{72}\right)^{-1}$$

$$= \left(\frac{1}{20}\right)\left(\frac{72}{10}\right)$$

$$= \frac{72}{201}$$

$$= 36\%$$

12
6
72

$3\times4\times6=72$

72
36
2|72
6
12

12
6|72
6
12

18
4|72
4
32

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$1(8+4+2+1)=15$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

$=$

x^4-1

28 84 84-28 56

$\frac{1}{3}\cdot\frac{2}{3}=\frac{2}{9}$

3) Multiply out and simplify, writing the simplified answer in the box.

$\left(\frac{10-18}{4}\right)\left(\frac{28-84}{7}\right)$

$=\left(\frac{-8}{4}\right)\left(\frac{-56}{7}\right)$

$=(-2)(-8)$

$=16$

$\left(\frac{5a^2-3ab^3}{2a}\right)\left(\frac{14a-28b}{7}\right)$

$=\left(\frac{a(5-3b)}{2a}\right)\left(\frac{7(2a-4b)}{7}\right)$

$=\left(\frac{5-3b}{2}\right)\ 2(a-2b)$

$=(5-3b)(a-2b)$

$=5a-10b-3ab+6b^2$

$10-30-18+16\cdot 9$

$=64-48$

$=16$

$5a-10b-3ab+6b^2$

00:00

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$\frac{20}{60}=\frac{1}{3}$

$\frac{\frac{4}{3}\cdot 60^{20}}{40}=2h$

3:20 AM

Quiz 2

Name: Paola Salazar **Perm Number:** 6515894

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(-12-18)^{-1}$

$\frac{1}{20}(12-18)$

$\frac{1}{20}(-6)$

$-6\overline{)20}$ 3.3, 18, 12.0

33%.

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

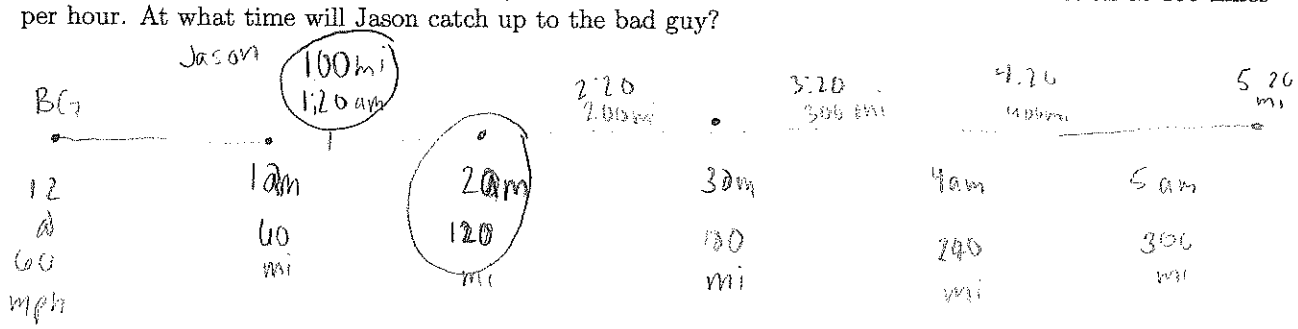
$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{70a^2-140ab-42a^2b-84ab^2}{14a}$$

$$5a-10ab-3a^2b-6ab^2$$

$$5a-10ab-3a^2b-6ab^2$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



1:40 am

Quiz 2

Name: Jessica Amezcua

Perm Number: 57134481

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{\frac{1}{12}+\frac{1}{18}}\right)$$

$$\frac{1}{20}\left(\frac{1}{\frac{18}{216}+\frac{12}{216}}\right)$$

$$\frac{1}{20}\left(\frac{1}{\frac{30}{216}}\right)$$

$$\frac{1}{20}\left(\frac{1}{7.2}\right)$$

$$\frac{1}{20}\cdot\frac{1}{7.2}$$

$$\frac{2}{7.2\overline{)20}}$$

$$\frac{2.2}{20}$$

$$\frac{14.4}{6.4}$$

$$\frac{7.2}{30\overline{)216.0}}$$

$$\frac{216}{12}$$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4+x^3+x^2+x-x^3-x^2-x-1$$

$$x^4-1$$

x^4-1

3) Multiply out and simplify writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$28a - 46b \cdot$

$$\frac{(7)}{(7)} \cdot \left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right) \cdot \frac{(2a)}{(2a)}$$

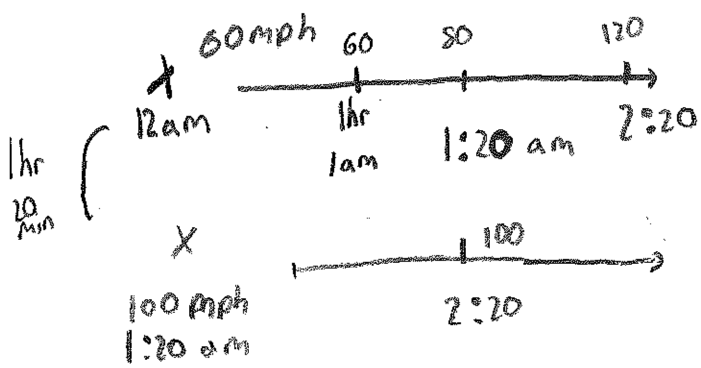
$$\left(\frac{35a-21ab}{14a}\right) \times \left(\frac{28a^2-56ab}{14a}\right)$$

$28a - 46b \cdot 35a$

$$\frac{(35a-21ab) \times (28a^2 - 56ab)}{14a}$$

$$\frac{\quad}{14a}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$\frac{20}{60} = \frac{1}{3}$

$\frac{3}{3} \cdot 60 \times \frac{1}{3} \cdot \quad \frac{180}{3} \times \frac{1}{3}$

$60 \times \frac{20}{60} \quad \frac{1200}{60}$

$100/2 = \frac{50}{2} = 25$

2:50

Quiz 2

Name: Alvaro Marquez **Perm Number:** 6596506

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

%1.5

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

x^4-1

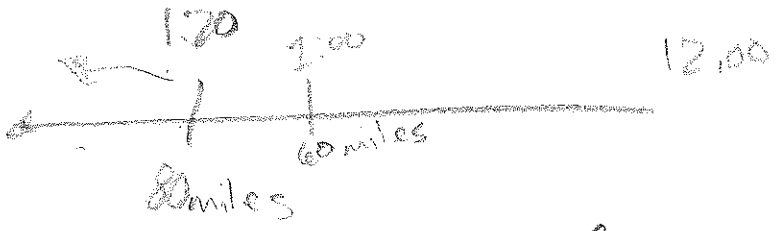
3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{5a}{2a} - \frac{3ab}{2a}$ $(2a-4b)$

$\left(\frac{5}{2} - \frac{3b}{2}\right)(2a-4b$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:20

Quiz 2

Name: Sean Andampour **Perm Number:** 6120505

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{12}+\frac{1}{18}$

$\frac{18}{206}+\frac{12}{206}=\frac{30}{206}$

$\frac{1}{20}\cdot\frac{30}{206}$

$\frac{1}{20}\cdot\frac{206}{30}$

$\frac{206}{600}$

$\frac{103}{300}$

$\left(20^{-1}\right)^{-1}$

$\left(\frac{1}{20}\right)^{-1}$

$\frac{1}{20}\cdot\frac{1}{\frac{1}{20}}=\frac{1}{\frac{20}{20}}=\frac{1}{1}=1=100\%$

100%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{7a-21ab}{14a}\left(\frac{28a^2-56ab}{14a}\right)$$

$$\frac{196a^3-392a^2b-588a^3b+1176a^2b^2}{14a}$$

$$70a^2+140ab-$$

$\frac{196a^3-392a^2b-588a^3b+1176a^2b^2}{14a}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

B - 1 - 60

2 - 120

J - 1 - 100 - 2:20

2 - 200 - 3:20

120 - 80 - 1:20

+60

140 - 220

+60 3:20

200

3:20

Quiz 2

Name: Erick Castillo **Perm Number:** 5900857

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\,12^{1}+18^{1}$

$\frac{1}{20}(30^{1})$ $\frac{1}{20}\cdot\frac{30}{1}$ $\frac{30}{20}=\frac{3}{2}$

$\frac{3}{2}$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

x^3+x^2+x+1

$(x-1)(x^3+x^2+x+1)$ $+(1)(x^3+x^2+x+1)$

$(x^4+x^3+x^2+1x)$ $+x^4+-x^3-1x-1$

$x \quad -1 \qquad x \quad -1$

$x^3\,x^4 \quad -x^3 \qquad x\,x^2 \quad -x$

$+ \qquad\qquad +$

$1\,1x \quad -1 \qquad 1\,1x \quad -1$

$(x^4-x^3+1x-x+x^2-x+1x-1)$

x^1+2x+2

$x^3+2x+2-x$

$x^3+2x+2-x$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

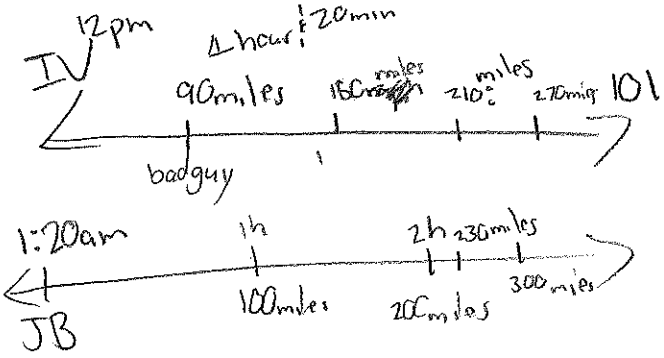
$70a -$

$5a - 3ab$

$14a \quad 70a \quad 42ab$

$-28b \quad 140ab \quad -84ab \quad 70a$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



Badguy = 12pm 60mph

JB = 1:20am 100mph

1/3 of 60mph = 20mph

2 hours in a half

3:50am

3:50am

Quiz 2

Name: Rebekka Kabel **Perm Number:** 5084769

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1} \Rightarrow \frac{1}{20}\left(\frac{5}{36}\right)^{-1} \Rightarrow \frac{1}{20}\left(\frac{36}{5}\right) = \frac{36}{100} = 36\%$.

(9) $\frac{1}{12}+\frac{1}{18}$ (6) $= \frac{9}{108}+\frac{6}{108} = \frac{15}{108} = \frac{5}{36}$

$\frac{18+12}{216} = \frac{30}{216} = \frac{15}{108} = \frac{5}{36}$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$(x^4+x^3+x^2+x)+(-x^3-x^2-x-1)$

x^4-1

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{70a^2-42a^2b-140ab+84ab^2}{14a} =$$

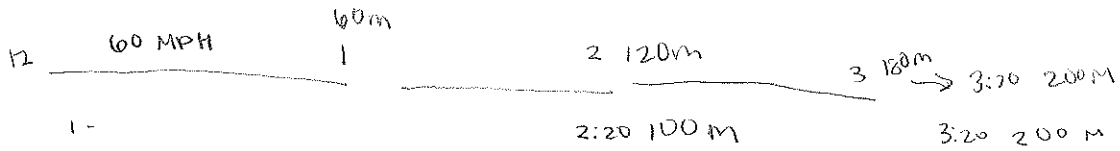
	$5a$	$-3ab$
$14a$	$70a^2$	$-42a^2b$
$-28b$	$-140ab$	$84ab^2$

$$\frac{35a^2-21a^2b-70ab+42ab^2}{7a} =$$

$$5a-3ab-10b+6b^2$$

$5a-3ab-10b+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



bad guy: 1 mile a min 20 min = 20 miles

1AM: 60 miles

2AM: 120 miles

3AM: 180 Miles

3:20: 200 miles

S.B: 100 mph

2:20 AM: 100 miles

3:20: 200 miles

3:20 AM

Quiz 2

Name: Odalys Ordaz Perm Number: 6065536

1) Simplify the expression below and write it as a percent.

$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$

$\frac{150}{100}=1$ 28.5

$\frac{3}{36}$ $\frac{1}{12}$ $\frac{1}{18}$ $\frac{2}{36}$

$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

18, 12, 12 = 3, 36

$\frac{5}{100}\left(\frac{30}{1}\right)$

$\frac{36}{3}+\frac{36}{2}$

$\frac{1}{20}(30)$ $12+18=30$

30, 0.05, 1.50

5% of 30 = 1.5

$\frac{20}{\times 5}$ $\frac{5}{100}(30)$

1.5%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

Quiz 2

Name: Aidan Afrasiabi **Perm Number:** 5222986 9

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}(12+18)$

$\frac{1}{20}(30)$ $\frac{30}{20}=\frac{3}{2}$

$\frac{3}{2}\cdot 100\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x$

$- x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)(2a-4b)$

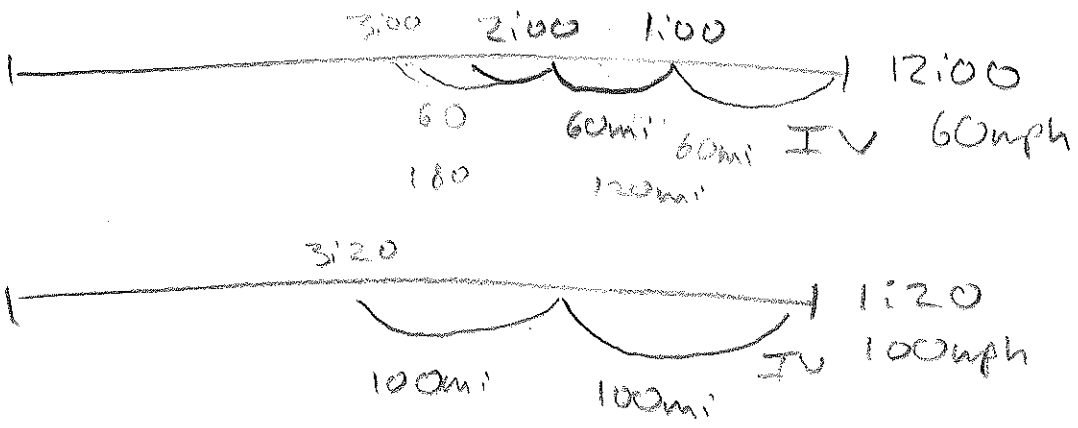
$2(5a-3ab)$

$10a-6ab\ (2a-4b)$

$12a-4b-6ab$

$\boxed{\left(\frac{5a-3ab}{2a}\right)(2a-4b)}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:20 am

$\boxed{3:00\ \text{AM}}$

Quiz 2

Name: Yang Li **Perm Number:** 3996188

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$$

$$= \frac{1}{20}\left(\frac{36}{5}\right)$$

$$= \frac{9}{25}$$

$\frac{9}{25}$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$= x^4+x^3+x^2+x-x^3-x^2-x-1$$

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$= \left(\frac{a(5-3b)}{2a}\right)\left(\frac{7(2a-4b)}{7}\right)$$

$$= \left(\frac{5-3b}{2}\right)(2a-4b)$$

$$(5-3b)(2a-4b)$$

$$= 10a - 20b - 6ab + 12b^2$$

$$\frac{2(5a-10b-3ab+6b^2)}{2}$$

$5a-10b-3ab+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

80 min

80 mile

3:20 AM

Quiz 2

Name: Anyi Zhao **Perm Number:** X3070600

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20}\left[\frac{1}{\left(\frac{1}{12}+\frac{1}{18}\right)}\right]$$

$$= \frac{1}{20}\left[\frac{1}{\left(\frac{3}{36}+\frac{2}{36}\right)}\right]$$

$$= \frac{1}{20}\left[\frac{1}{\left(\frac{5}{36}\right)}\right]$$

$$= \frac{1}{20}\cdot\frac{36}{5}$$

$$= \frac{9}{25}$$

$\frac{9}{25}\times 100 = \frac{900}{25}\%$

$= 36\%$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$= x^4+x^3+x^2+x-x^3-x^2-x-1$$

$$= x^4-1$$

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$= \frac{(5a-3ab)(14a-28b)}{2a \cdot 7}$$

$$= \frac{(14a \cdot 5a - 28b \cdot 5a - 3ab \cdot 14a + 3ab \cdot 28b)}{14a}$$

$$= \frac{(70a^2 - 140ab - 42a^2b + 84ab^2)}{14a}$$

$$= \frac{\cancel{14}(70a^2 - 140b - 42ab + 84b^2)}{\cancel{14a}}$$

$$= \frac{(5a^2 - 10b - 3ab + 6b^2)}{1}$$

$5a^2 - 10b - 3ab + 6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

BG → 60

JB → 100

if it will take x minutes of time for Jason to catch up to the bad guy

12:00AM − 1:20AM = 80 minutes

$$60 \cdot (x + 80) = 100x$$

$$60x + 4800 = 100x$$

$$4800 = 40x$$

$$x = 120$$

120 minutes = 2 hours

120 minutes / 2 hours

Quiz 2

Name: Mason Montgomery **Perm Number:** 392956

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(12^{1}+18^{1})$

$\frac{1}{20}(30)$

$\frac{30}{20}$

3/2

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$35a-21ab$

$28a^2-56ab$

56
-21
35

$35a$

$28a^2-35ab$

35

$28a-35ab$

$\frac{35}{28a-35ab}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12AM
60mph

1:20 AM
100mph

gone 80 miles at 1:20
140 miles at 2:20
200 miles at 3:20
4:20

1:35 1:50 2:05 2:20 2:45
25 50 75 100 125

3 3:15 3:30 3:45 4
150 175 200 225 250

260 4:20

4:15
275

3:45 AM

Quiz 2

Name: Ian Huang **Perm Number:** 3926409

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$20^{-1}\cdot\frac{1}{(12^{-1}+18^{-1})}$$

$$\frac{20^{-1}}{12^{-1}+18^{-1}}$$

$$\frac{\frac{1}{20}}{\frac{1}{12}+\frac{1}{18}} \rightarrow \frac{\frac{1}{20}}{\frac{5}{36}} = \frac{1}{20}\times\frac{36}{5} = \frac{36}{100} = 36\%$$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4+x^3+x^2+x-x^3-x^2-x-1$$

$$x^4-1$$

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$a\left(\frac{5-3b}{2}\right)7(2a-4b)$

$a\left(\frac{5-3b}{2}\right)7\cdot 2(a-2b)$

$14a\left(\frac{5-3b}{2}\right)(a-2b)$

$14a\left(\frac{5-3b}{2}\right)(a-2b)$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12-1 60

$\frac{20}{60}$ $\frac{1}{3}$

90 mi

1- 1:20 60 120

$\frac{1}{3}\times 60 = 20$

$t = t - \frac{4}{3}$

JB hours 120

2: 60 60

66.6 x 2 = 132

$\frac{40}{60} = \frac{2}{3}$

$\frac{2}{3}\times 100 = \frac{100}{3}$

66.$\overline{6}$ 120

60 60

66.6

4:20 AM

Quiz 2

Im sorry inadvance :)

Name: Nicholas Prasad

Perm Number: 563875

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)$

360
240
480

20
18
160
200
360

240 + 360

20
× 12
40
200

Answer: 6%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

Answer: x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$(7(5a-3ab))(2a(14a-28b))$

$(35a-28ab)(28a-56b)$

	$28a$	$-56b$
$35a$	$980a$	$35a \cdot -56b$
$-28ab$	$28a \cdot -28ab$	$-28ab \cdot -56b$

$$980a + 35a + 28a$$

$$\begin{array}{r} 4 \\ \cdot 2 \\ \hline 28 \\ 35 \\ \hline 140 \\ 840 \\ \hline 980 \end{array}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

+20

2:40AM

Quiz 2

Name: Ava Gurwitz **Perm Number:** 8686594

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{36}{5}\right)$$

$$\frac{9}{25}$$

$$25\overline{)9.0}\quad 0.36$$

$$\frac{75}{150}$$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	$+1$
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{(5-3b)}{(2)}$ $\left(\frac{(2a-4b)}{1}\right)$

$\frac{70a^2-140ab-42a^2b+84ab^2}{14a}$

$5a-10b-3ab+6b^2$

$\frac{(2a-4b)(5-3b)}{2}$

$\frac{10a-6ab-20b+12b^2}{2}$

$5a-3ab-10b+6b^2$

$\boxed{5a+6b^2-3ab-10b}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

	Bad	Jason
1	80	~~100~~
2	140	~~200~~ 100
3	200	~~300~~ 200
4	260	300
5	320	400
6		

1:20 80

2:20 140 100

200 200

$\frac{1}{3}(60)$

$\frac{60}{3}$ 20

$\boxed{3:20\text{ am}}$

Quiz 2

Name: Jessica Taghizadeh **Perm Number:** 6681972

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}(12+18)$

$\frac{1}{20}\left(\frac{30}{1}\right) \rightarrow \frac{30}{20} \rightarrow 1\,1/2$

1 1/2

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x + 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

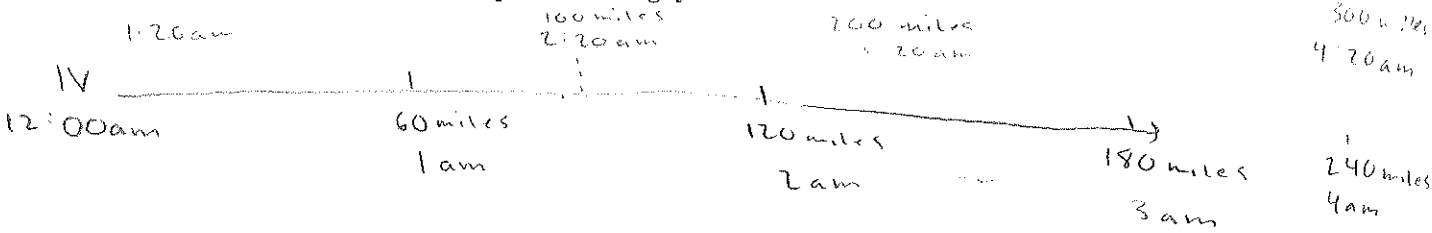
$$\frac{70a^2 + -140ab + -42a^2b + 84ab^2}{14a}$$

$$\frac{35a^2 + -70ab + -21a^2b + 42ab^2}{7a}$$

$$\frac{5a^2 + -10ab + -3a^2b + 6ab^2}{a}$$

$$\boxed{\frac{5a^2 + -10ab + -3a^2b + 6ab^2}{a}}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$\frac{100 \text{ miles}}{5}$ = 20 miles per 20 min

200 miles at 3:20 − 20 min = 180 miles at 3am

$\frac{100}{60}$ = $\frac{180}{200}$ = $\frac{9}{10}$ of an hour = 6 × 9 = 54 min

3am + 54 min = 3:54am

$100(+ - 1\frac{1}{3})$ + 60 + $300\frac{2}{3}$ + 240 =

$\boxed{3:20\text{am}}$

Quiz 2

Name: Ricardo De la Cabada Perm Number: 8490484

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}(12+18)$

$\frac{1}{20}\left(\frac{30}{1}\right)$

$\frac{30}{20}$

$\frac{3}{2}$

$\frac{3}{2}$

3/2

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{70a-140ab-42a^2b+84ab^2}{14a}$

$\frac{a-20ab-3a^2b+6ab^2}{2a}$

$\boxed{\frac{a-20ab-3a^2b+6ab^2}{2a}}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

leaves = 12:00 am

60 mph

Bad guy	JB
12:00 am	1:20 am
60 mph	100 mph

JB
hour 1 = 100
hour 1 = Bad guy 140
hour 2 = JB 200
hour 2 = Bad guy

2 hours + 1:20 am

80 miles when JB leaves

100 mph = 100 140

$\boxed{3:20 \text{ am}}$

Quiz 2

Name: Candice Moreno **Perm Number:** 8930445

section : tuesday 8am

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ .100

.05 x100

5

$5\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

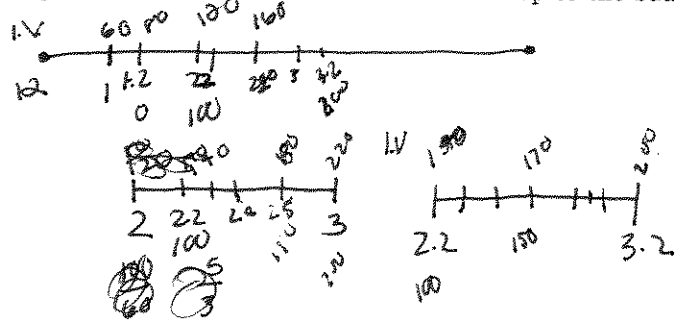
$\frac{5a-3ab}{2a} \cdot (2a+4b) \cdot 2a$

$(5a-3ab)(4a^2+8ab)$

$20a^3+40a^2b-12a^3b-24a^2b^2$

$= \boxed{20a^3+40a^2b-12a^3b-24a^2b^2}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$\boxed{3:20\text{ AM}}$

Taylor Iden

Quiz 2

Name: J **Perm Number:** 570941-5

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20} \cdot \left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20} \cdot (12+18)$

$\frac{1}{20} \cdot 30$

$\frac{30}{20} = \frac{3}{2} = 1.5$

or 150%

150%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box

$$\left(\frac{5a-3ab}{2a}\right)\cdot\left(\frac{14a-28b}{7}\right)$$

$2a^{-1}(5a-3ab)\cdot(2a-4b)$

$(10-3b)(2a-4b)$

$10a-40b-6a^2+12b^2$

$-6a^2+12b^2+10a-40b$

$2(-3a^2+6b^2+5a-20b)$

$-6(a^2-2b^2)+5(a-4b)$

$\boxed{2(-3a^2+6b^2+5a-20b)}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

1am 2am 3am 4am

60 mph @ 12am → 60 → 120 → 180 240

2:20am 3:20am

100 mph @ 1:20am → 100m → 200m → 4:20 or 3:20 pm

220

50

3

$\frac{60\text{ mi}}{1\text{ hr}}$ $\frac{100\text{ mi}}{1\text{ hr}}$

Borne 2:50am → 150 miles

bad guy @ 2am → 120 @ 2:20 → 150 miles

30 miles / 20 mins

3am 180

3:20

$\boxed{3:00\text{ am}}$

Quiz 2

Name: Aly Brownlee **Perm Number:** 42414493

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\Rightarrow \frac{1}{20}\left(\frac{1}{\left(\frac{1}{12}+\frac{1}{18}\right)}\right)$

$\Rightarrow \frac{1}{20}\left(\frac{1}{\frac{2}{216}}\right)$

$\Rightarrow \frac{1}{20}\left(\frac{1}{108}\right)$

$\Rightarrow \frac{1}{2160}$

$\Rightarrow \frac{\frac{1}{2160}}{100}$

$\frac{1}{20}\left(\frac{1}{\left(\frac{1}{12}+\frac{1}{18}\right)}\right)$

$\frac{1}{20}\left(\frac{1}{108}\right) = \frac{1}{2160}$

$\frac{1}{2160} \cdot 100$

$\Rightarrow \frac{1}{2160}$

$\frac{\frac{1}{2160}}{100}$

$\frac{1}{2160} \cdot \frac{1}{100}$

$\frac{1}{216000}$ %

$\frac{1}{7}$ $\frac{1}{1} \cdot \frac{1}{7}$

$\frac{1}{\frac{1}{7}}$ $\frac{1}{1} \cdot \frac{7}{1}$

$\frac{\left(\frac{1}{2160}\right)}{100}$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\Rightarrow \frac{70a^2 - 140ab - 42a^2b + 84ab^2}{14a}$$

$$\Rightarrow \frac{2a(35a - 70b - 21ab + 42b^2)}{2a \qquad (7)}$$

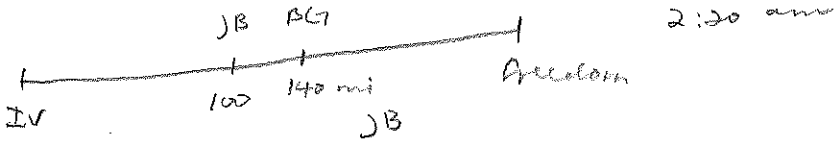
$$\Rightarrow \frac{7(5a - 10b - 3ab + 6b^2)}{7}$$

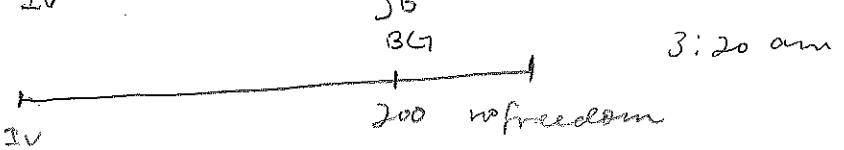
$$\boxed{5a - 10b - 3ab + 6b^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

mph

$\frac{mi}{hr} \cdot \frac{1\,hr}{60\,mi}$





$$\boxed{3:20 \text{ am}}$$

Quiz 2

Name: Riley Clark **Perm Number:** 5155312

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$$

$\frac{1}{12}+\frac{1}{18}$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)$

$\frac{1}{120}(30)=\ldots$

18
36

$\frac{1}{20}\left(\frac{36}{5}\right)^{-1}$ $\frac{9}{1}$ $\frac{1\cdot 3}{12\cdot 3}$ $\frac{1\cdot 2}{18\cdot 2}$ $\frac{3}{36}+\frac{2}{36}=\frac{5}{36}$

$\frac{9}{25}=36\%$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box.

$\left(\frac{5a-3ab}{2a}\right)\left(2a-4b\right)$

$\left(\frac{5a-3ab}{2a}\right)\left(2a-4b\right)$

$\left(\frac{5-3b}{2}\right)\left(2a-4b\right)$

$10a-20b+6ab-12b^2$

$(5a-3ab)(2a-4b)$

$\frac{(10a^2-20ab-6a^2b+12ab^2)}{2a}$

$5a-10b-3ab+6b^2$

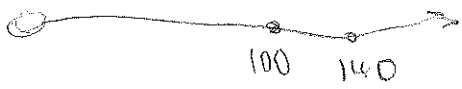
$\boxed{5a-10b-3ab+6b^2}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

2:20

60

3:00



1.33

$\frac{20}{60}=\frac{1}{3}$

$\frac{5}{6}$ 60 10

50

$60\cdot 2\frac{1}{3}$

120 +

140

$1\frac{1}{3}\cdot 100 = 100+66=166$

2:50

$1\frac{1}{2}\cdot 100 = 150$

$2\frac{5}{6}\cdot 100 = 150$

$60\cdot 2\frac{5}{6}$

120 + 50

60

$\boxed{2:50\ AM}$

Quiz 2

Name: Ela Schulz **Perm Number:** 529518 - 3

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20} \cdot \frac{1}{(12^{-1}+18^{-1})}$

$\frac{1}{20} \cdot \frac{1}{\left(\frac{1}{12}+\frac{1}{18}\right)}$

$\frac{1}{20} \cdot \frac{1}{\left(\frac{5}{36}\right)}$

$\frac{1}{20} \cdot \frac{36}{5}$

$= \frac{36}{100}$

36%

$\frac{1}{20}\left(\frac{1}{\frac{1}{12}+\frac{1}{18}}\right)$

$\frac{1}{20}\left(\frac{1}{\frac{5}{36}}\right)$

$\frac{1}{20}\left(\frac{36}{5}\right) = \frac{36}{100}$ ↓ 36% ✓

$\frac{1}{12} + \frac{1}{18}$

$\frac{3}{36} + \frac{2}{36} = \frac{5}{36}$

$1 \div \frac{5}{36}$

$1 \cdot \frac{36}{5}$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$(x^4 - 1)$

$(x-1)(x^3+x^2+x+1)$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$ ✓

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$7(5a-3ab) = 2a(14a-28b)$

$35a - 21ab = 28a^2 - 56ab$

$= 28a^2 - 35a - 35ab$

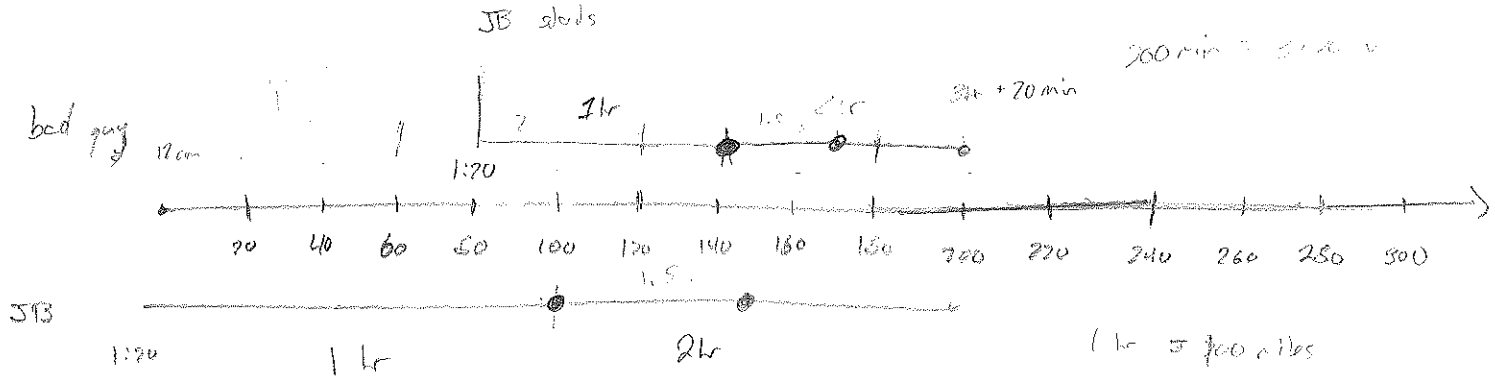
$7(5a-3ab) = 2(14a-28b)$

$35a - 21ab = 28a^2 - 56ab$

$= 25a^2 - 35a - 35ab$ ✓

$28a^2 - 35a - 35ab$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



1:20 + 2hr ⟶ 3:20

3hr + 20 min

(a) 3:20 bad guy = 200 miles away ✓

1:20 + 2hr JB = 200 miles away

3:20 AM

Quiz 2

Name: Marc Nunez Perm Number: 8042103

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ $\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}\cdot 100$

$\frac{1}{20}$ [redacted] $5\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$5\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5-3b}{2}\right)\left(\frac{14a-28b}{7}\right)$ $\left(\frac{5-3b}{2}\right)(2a-4b)$

$\left(\frac{5-3b}{2}\right)\cdot 2(a-2b)$

$(5-3b)\cdot(a-2b)$

$5a-10b-3ab+6b^2$

$5a-10b-3ab+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12:00 1 1:20 2 3 4

0 60 80 120 180 240

0

2:20 3:20

100 200

3:00 AM

Quiz 2

Name: Zoe Albornoz **Perm Number:** 6497796

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\rightarrow \frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$ $\frac{5}{36}$

$\rightarrow \frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

$\rightarrow \frac{1}{20}\left(\frac{36}{5}\right) \rightarrow \frac{36}{100}$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$\rightarrow x^4+x^3+x^2+x-x^3-x^2-x-1$

$\rightarrow x^4-1$

x^4-1

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\rightarrow \left(\frac{a(5-3b)}{2a}\right)\left(\frac{2(7a-14b)}{7}\right)$$

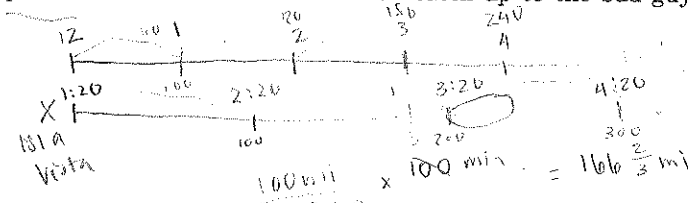
$$\rightarrow \frac{(5-3b)(7a-14b)}{7}$$

$$\rightarrow \frac{35a-70b-21ab+42b^2}{7}$$

$$\rightarrow \frac{7(5a-10b-3ab+6b^2)}{7}$$

$5a-10b-3ab+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$\frac{100\text{ mi}}{1\text{ hr}} \times 100\text{ min} = 166\frac{2}{3}\text{ mi}$

$\frac{100\text{ mi}}{60\text{ min}} \times 160\text{ min} = 266\frac{2}{3}\text{ mi}$

1:20 → 3

→ 4

3:40 am

Quiz 2

Name: Maya Cooks **Perm Number:** 6388730

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$20^{-1}(12^{-1}+18^{-1})^{-1}$

$20^{-1}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$20^{-1}\ 12+18$

$\frac{1}{20}(12+18)$

$\frac{1}{20}(30)$

20^{-1}

$\frac{1}{20(30)}\cdot 20$

$\frac{1}{20}\cdot\frac{30}{20}=\frac{30}{20}\div\frac{3}{2}$

1.5

1.5% or 15%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$(x^4+x^3+x^2+x)$

$+$

$-x^3-x^2-x-1$

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$7 \cdot \left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7 \cdot 2a}\right) \cdot 2a$$

$$(35a - 21ab)(28a^2 - 56ab)$$

$$980a^3 - 1960a^2b - 588a^3b + 1176a^2b^2$$

$a^2 + a^3b$

$-1960 + (-588$

$a^5 b^2$

$1176a^2$

$+ -1960a^2b$

$+ -588a^3b$

$-2588a^5b^2$

$1176a^2$

$+ -2588a^5b^2$

$-1412a^7b^2$

$980a^3 - 1412a^7b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

Bad Guy Distance $D = R \cdot T$

IV

60 mph

12am

Distance

100 miles $(t - 1.20)$

$60t - 60 = 100(t - 1.20)$

$60t - 60 \quad 100t - 101.20$

$60t = -41.20$

Quiz 2

Name: Elika Tahedi

Perm Number: 7049280

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$

$\frac{36}{100}$ $\frac{36}{\frac{1}{100}}$

36%.

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

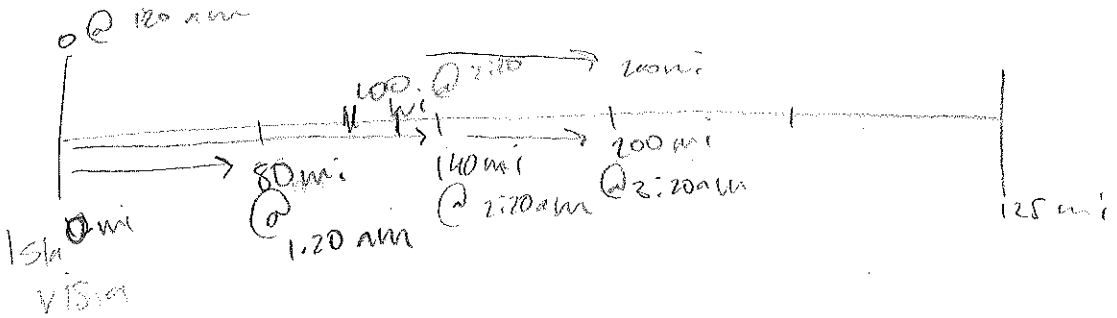
$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$(35a - 21ab)(28a^2 - 56ab)$

	$28a^2$	$-56ab$
$35a$	$320a^3$	$-1960a^2b$
$-21ab$	$-588a^3b$	$1176ab^2$

$320a^3 - 1960a^2b - 588a^3b + 1176ab^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



3:20 am

Quiz 2

Name: Harper Giordano **Perm Number:** 5884150

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$12 \times 3 = 36$
$18 \times 2 = 36$

$$\frac{3}{36}+\frac{2}{36}$$

$$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{36}{5}\right)^{9}$$

$$\frac{9}{25}$$

$$\frac{9}{25} = \frac{36}{100} = 36\%$$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

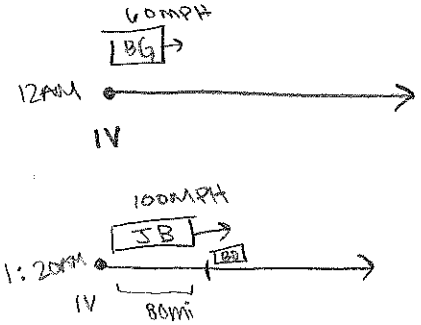
$$\left(\frac{5a-3ab}{2a}\right)(2a-4b)$$

$$\frac{10a^2-20ab-6a^2b+12ab^2}{2a}$$

$$5a-10b-3ab+6b^2$$

$$6b^2-3ab+5a-10b$$

4) A bad guy leaves Isla Vista at ~~midnight~~ 12AM, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



$60t + 80 = 100t$

$80 = 40t$

$t = 2$

2hrs + 1:20AM → 3:20 AM

$\frac{60m}{hr} \mid \frac{4}{3}hr = 80mi$

1hr 20mins

3:20 AM

$240/3 = 80$

Quiz 2

Name: Daniela Ramirez Perm Number: 6163299

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}$ (7.2)

0.36

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

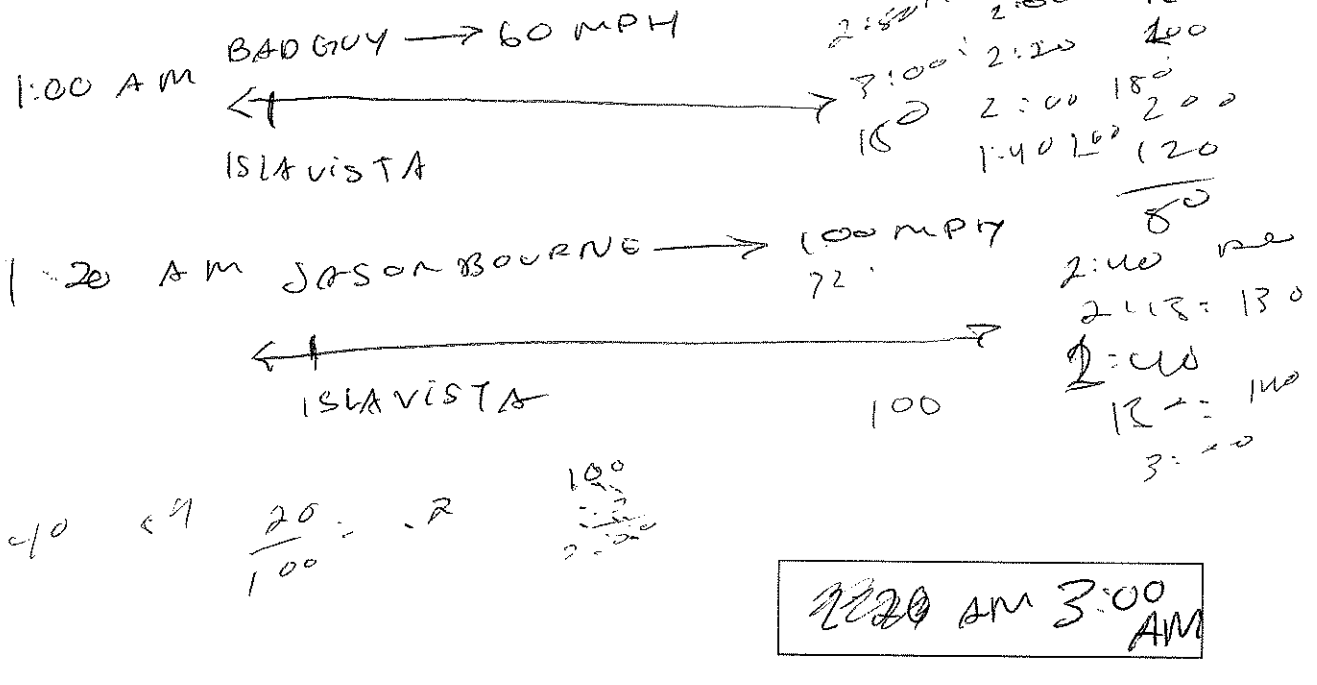
$x^4 - x^3$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:20 AM 3:00 AM

Quiz 2

* Tuesday 8AM section

Name: Isabella Bishop

Perm Number: 3760204

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(12+18\right)^{-1}$ $\frac{1}{20}\left(\frac{30}{1}\right)$

$\frac{1}{12}$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{18}{216}+\frac{12}{216}\right)$

$\frac{1}{20}\left(\frac{30}{216}\right)^{-1} = \left(\frac{1}{20}\right)\left(\frac{216}{30}\right)$

$\frac{1}{20}\left(\frac{6}{36}\right)^{-1}$

$\frac{1}{20}\left(12+18\right)$

$\frac{1}{20}\left(\frac{30}{1}\right)$ $\frac{30}{20} = \frac{3}{2}$

$\frac{1}{12} \times 18$ $\frac{18}{216}$ $\frac{3}{2}$ 1.5% ?

$30 \div 6 = 5$

$216 \div 6 = 36$

1.5%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + 1x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{(5a-3ab)}{2a} \times (2a-4b)$

$7(5a-3b) = 2a(14a-28b)$

$35a - 21b = 28a^2 - 56ab + 21b$

$+21b$

$35a = 28a^2 - 56ab + 21b - 35a$

$-35a$

$\frac{(5a-3ab)(14a-28b)}{2a \quad 7 \cdot 1}$

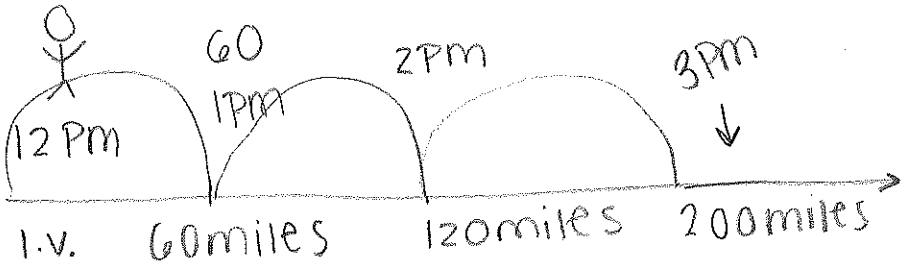
$\frac{(5a-3ab)(2a-4b)}{2a}$

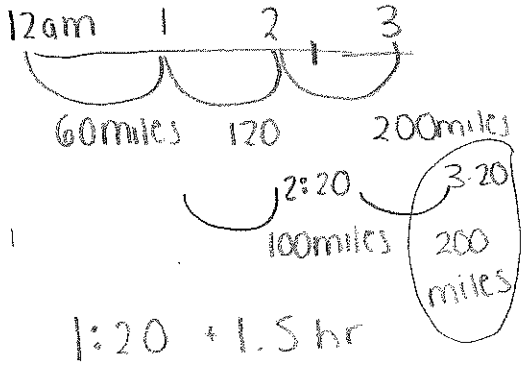
$10a^2 - 20ab - 6a^2b + 12b$

$\frac{10a^2 - 20ab + 12ab^2}{14a}$

$5a^2 - 10ab - 3a^2b + 6b$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?





1:20am → 100mph

1hr, 2hr

100miles

$60x = 100x$

60m, 200m

2:20am 200miles

3:20 200miles

1:20 + 1.5hr

2:20 + 30min =

2:50am

$\frac{60 \text{ mph}}{40 \text{ mph}} = \frac{3}{2} = 1.5 \text{ hr}$

3:20am

Quiz 2

Name: Desiree Espinoza **Perm Number:** 4736211

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$

$\frac{1}{20} + \frac{20}{20}$ $\frac{30}{1}$

30%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
-1	$-x^3$	$-x^2$	$-x$	-1
x	x^4	x^3	x^2	x

$= -1+x^4$

$-1+x^4$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{70a^2}{2a}\right)\left(\frac{84ab^2}{7}\right)$

$35a+$

$35a+2ab^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

Bad Guy
12 am
60 mph

Jason Borne
1:20 AM
100 mph

60
+60
120

100mph

1 am - 120

1:32 A.M

Quiz 2

Name: Nathan Starkovich **Perm Number:** 4191813

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{36}{5}\right)$

$\frac{36}{100}$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

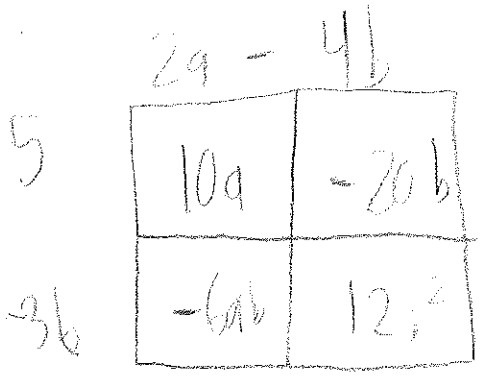
$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$



$$\left(\frac{5-3b}{2}\right)\cdot\left(\frac{2a-4b}{1}\right)$$

$$\frac{10a-20b-6ab+12b^2}{2}$$

$$5a-10b-3ab+6b^2$$

$$\boxed{5a-10b-3ab+6b^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$$60x = 100\left(x-\frac{4}{3}\right)$$

$$\frac{3x}{5} = x - 1/3$$

$$3x = 5x - 20/3$$

$$-2x = -20/3$$

$$x = 10/3$$

$$\boxed{3:10\ \text{AM}}$$

Quiz 2

Name: LUCIA CARLAMO **Perm Number:** 6185995

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{18}{216}+\frac{12}{216}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{30}{216}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{216}{30}\right)$$

$$\frac{216}{60} = \frac{108}{30} = \frac{54}{15} = \frac{18}{3} \times 100\% = \frac{1800}{3}\%$$

$$\frac{180}{3}\%$$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$$

$$x^4 - 1$$

$$x^4 - 1$$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$(5a-3ab)(14a-28b)$

$$\frac{70a^2-140ab-42a^2b+84ab^2}{14a}$$

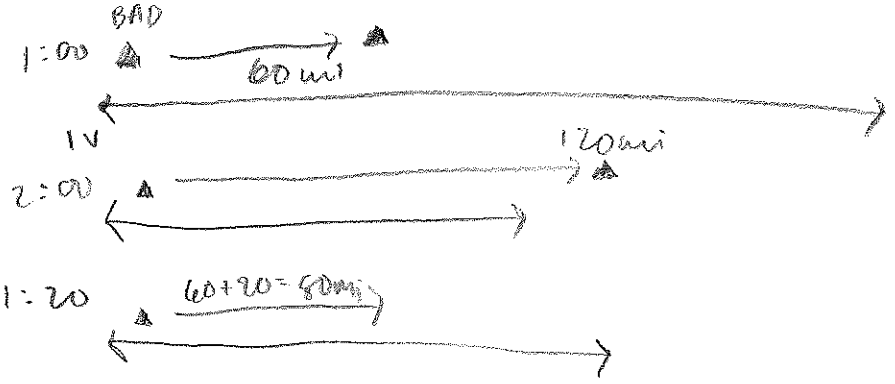
$$\frac{35a^2-70ab-21a^2b+42ab^2}{7a}$$

$$\frac{5a^2-10ab-3a^2b+6ab^2}{a}$$

$$5a-10b-3ab+6b^2$$

$\boxed{5a-10b-3ab+6b^2}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



80 mi "head start"

$\frac{80}{100} = \frac{x}{60}$

$\frac{4800}{100} = 48$ mins to catch up

1:20 + 48 = 2:08

$\boxed{2:08}$

Quiz 2

Name: Mustpha Saeed **Perm Number:** 4744215

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\cdot\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\cdot\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

$\frac{1}{20}\cdot\left(\frac{5}{36}\right)^{-1}$

$\frac{1}{20}\cdot\frac{36}{5}$

$\frac{36}{100}$ 36%

36 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	X	-1
X^3	X^4	$-X^3$
X^2	$-X^3$	$-X^2$
X	$-X^2$	$-X$
1	$-X$	-1

X^4-1

X^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$5a \quad -3ab$

$14a \quad 70a^2 \quad -42a^2b$

$-28b \quad -140ab \quad 84ab^2$

$$\frac{70a^2+84ab^2-42a^2b-140ab}{14a}$$

$$\frac{10a^2+12ab^2-6a^2b-20ab}{2a}$$

$$\frac{5a^2+6ab^2-3a^2b-10ab}{a}$$

$14 \times 5 = 70$ $\quad 2 \times 28 \times 3 = 84$ $\quad 14 \times 3 = 42$ $\quad 4 \times 28 \times 5 = 140$

$$\boxed{\frac{5a^2+6ab^2-3a^2b-10ab}{a}}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$\frac{20}{60} \quad \frac{1}{3}$

$60t = 100\left(t - \frac{4}{3}\right)$

$60t = 100t - \frac{400}{3}$

$-40t = -133$

3.3×60

$\frac{8}{6} \quad \frac{4}{3}$

1:20 → 2:00 → 3:00 → 4:00 → 4:40

40 60 60 40

120 + 80

200

$3 \overline{)400.0}$ $\quad -31$ $\quad 10$ $\quad -9$ $\quad 10$ $\quad (133)$

$-\cancel{60\overline{)133}}$

$40 \overline{)133}$ $\quad 120$ $\quad (3.3)$

$12 \overline{)40.0}$ $\quad -36$ $\quad 40$

3.3 hr $\quad$ 3 hr 20 min

$\frac{400}{3} \times \frac{1}{40} \quad \frac{400}{120}$

$\times \frac{60}{3.3}$ $\quad 180$ $\quad 180\times$ $\quad \cancel{5\,8.0}$

200 minutes

Bad Guy	Jason
12	0	0
1	60	0
2	120	66.67
3	180	166.67
4	240	266.67
5	300	
6	360	

$60t = 100\left(t - \frac{4}{3}\right)$

$60t = 100t - \frac{400}{3}$

$-40t = -\frac{400}{3}$

$t = \frac{400}{3} \times \frac{1}{40} \quad \frac{400}{120}$

$12 \overline{)40}$ $\quad 36$ $\quad 4$ $\quad 3.33$

3.33×60 $\quad 000$ $\quad 999\times$ $\quad 150$

$$\boxed{3:20\text{ am}}$$

Quiz 2

Name: Kat Brydson

Perm Number: 5100805

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{6}{72}+\frac{4}{72}$

$\frac{10}{72}$

$\frac{72}{10}\cdot\frac{1}{20}$

$\frac{72}{200}=\frac{36}{100}$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

FOIL

3) Multiply out and simplify. writing the simplified answer in the box.

$(5a-3ab)(14a-28b)$ $\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$

$70a^2 - 140ab - 42a^2b + 84ab^2$

$14a$

$(3a-3ab)(2a-4b)$

$(3a-1ab)(2a-4b)$

	$3a$	$-3ab$
$2a$	$6a^2$	$-6a^2b$
$-4b$	$-12ab$	$+12ab^2$

$6a^2 - 12ab - 2a^2b + 4ab^2$

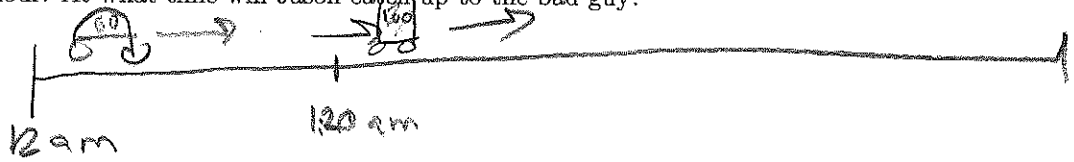
$6a^2 - 6a^2b - 12ab + 12ab^2$

6

$a^2 - a^2b - 2ab + 2ab^2$

$a^2 - a^2b - 2ab + 2ab^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



	Thr	BG	JB
		60	0
1:20	1.33hr	80	0
2:20	2.33hrs	140	100
3:20	3.33hrs	200	200

3:20 am

Quiz 2

Name: Victoria McNabb **Perm Number:** 5171038

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20} \times \frac{1}{12^{-1}+18^{-1}}$$

$$= \frac{1}{20} \times \frac{1}{\frac{12+18}{1}} = \frac{30}{20} = \frac{3}{2} = 1.5 \times 100 = 150\,\%$$

12
18
30

150 %

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$$

$$x^4 - 1$$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$(5a-3ab)(14a-28b)$

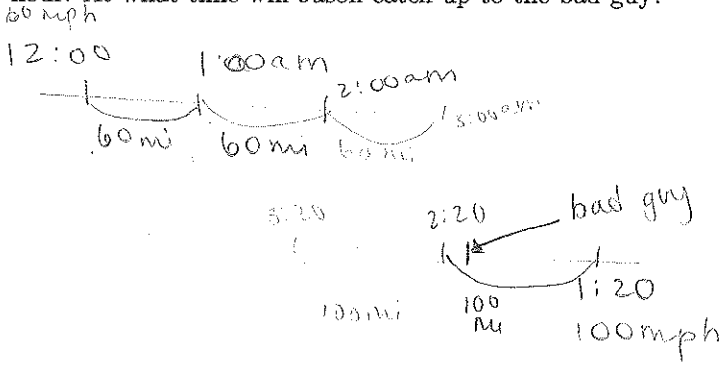
$$= \frac{35a^2-70ab-21a^2b+42ab^2}{7a}$$

$$= \frac{5a^2-10ab-3a^2b+6ab^2}{a}$$

$$= 5a-10b-3ab+6b^2$$

$5a-10b-3ab+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:00 AM

Quiz 2

Name: Breanna Flores **Perm Number:** 42838412

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{12}\times 3 = \frac{3}{36}$

$\frac{1}{18}\times 2 = \frac{2}{36}$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{36}{5}\right)$

$\frac{1}{20}\times\frac{36}{5} = \frac{36}{100} \div 2 = \frac{13}{50}$

$2\overline{)26}$ → $\frac{13}{00}$

$.26 \Rightarrow \times 100 = 26\%$

$50\overline{)13.00}$ → -100 → 300

18 18
×12 ×2
36 36
+180
216

12×2 = 24 + 12 = 36

18×2 = 36

12 ×5 = 600

50 ×15 = 750

50 ×13 = 650 (50 ×10 = 500, 50 ×3 = 150)

50 ×6 = 300

50 ×2 = 100

26%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$1x^4 + 1x^3 + 1x^2 + 1x$ + $-1x^3 - 1x^2 - 1x + 0$

$1x^4 + 0$

	$+x^3$	$+x^2$	$+x$	$+1$
$+x$	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	0

$x^4 + 0$

$x^4 + 0$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{5a-3ab}{2a}$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

BG
60mph
12:00pm
3 o'clock

JB
100mph
1:20am

60miles

12:00

1:20

100miles

$d = r \cdot t$

$\frac{d}{60(t)} + \frac{d}{100(t-1.20)}$

$-60t \quad -60t$

$60t = 100t - 120.0$

$\frac{120}{40} = \frac{40t}{40} \Rightarrow t = 3$

$60 \times 3 = 120$ miles

$100(3-1.20) = 180$ miles?

$100(1.80)$

3 o'clock

Quiz 2

Name: Alexis Telford **Perm Number:** 6274042

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{\frac{1}{12}+\frac{1}{18}}\right)$$

$$\frac{12+18}{216} \to \frac{30}{216} \to \frac{15}{108}$$

$$\frac{\frac{1}{1}}{\frac{15}{108}} \cdot \frac{108}{15}$$

$$\frac{108}{300} = \frac{54}{150}$$

$$\frac{27}{75} \cdot \frac{1}{100}$$

$$\left(\frac{27}{75 \cdot 100}\right) 100$$

$$\frac{27}{75}$$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$(x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$$

$$x^4 - 1$$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

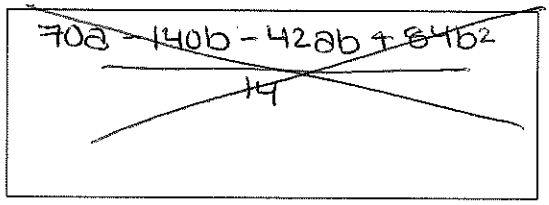
$70a^2 - 140ab - 42a^2b + 84ab^2$

$140a$

$70a - 140b - 42ab + 84b^2$

14

$5a - 10b - 3ab + 6b^2$



4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12	0
1	60
2	120
3	180

1:20	0
2:20	100
3:20	200

$60t + 100(t+1)$

$60t + 100t + 100$

100 mph

$\frac{60}{4} = 15$

25mp 15min
A B

12
12:20
12:40
1
1:20
1:40
2
2:20
2:40
3

0

Quiz 2

Name: Max Sheldon Perm Number: 6300784

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

100/36

50/18

25/9

$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

$2.\overline{7}$

$9\overline{)25}$ R 7

$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$

$\frac{5/36}{20}$

$\frac{1}{2.\overline{7}}$

$\frac{1}{20}\cdot\frac{1}{\frac{5}{36}}$ 1/100/36

$\frac{100}{2.\overline{7}}\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$(5a-3ab)(14a-28b)$

$\frac{70a^2-140ab-42a^2b-84ab^2}{14a}$

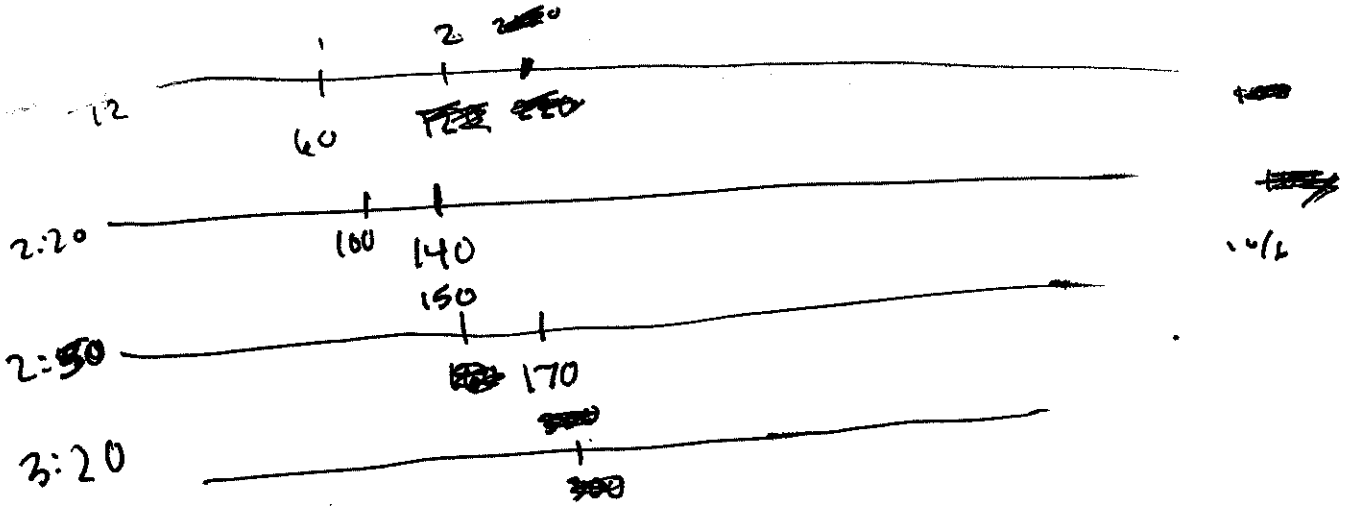
$\frac{70a-140b-42ab-84b^2}{14}$

$5a-10b-3ab-6b^2$

$5(a-2b)-3b(a-2b)$

$(5-3b)(a-2b)$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



3:20 am

Quiz 2

Name: Jeremy Cawthon Perm Number: 4196069

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{18+12}{12\cdot 18}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{30}{216}\right)^{-1}$$

$$\frac{1}{20}\cdot\frac{216}{30}=\frac{216}{600}=\frac{36}{100}=36\%$$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{(5a-3ab)(14a-28b)}{14a}$$

$$\frac{14a(5-3b)(a-2b)}{14a}$$

$$(5-3b)(a-2b)$$

	a	$-2b$
5	$5a$	$-10b$
$-3b$	$-3ab$	$+6b^2$

$5a-3ab-10b+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

→ extra 1 hour 20 min

$b = 60x + 80$

$j = 100x$

$100x = 60x + 80$

$40x = 80$

$x = 2$

$1:20 + 2 = 3:20$

3:20 am

Quiz 2

Name: Annalise Evans **Perm Number:** 5301023

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$

$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{5}{36}\right)^{-1}$

$\frac{1}{20}\left(\frac{36}{5}\right) = \frac{36}{100} = 36\%$.

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$28a^2 - 56ab + 35a - 21ab$

$28a^2 - 77ab + 35a$

$70a^2 - 140ab - 42a^2b + 84ab^2$

$14a$

$5a - 10b - 3ab + 6b^2$

$5a - 10b - 3ab + 6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

t	B	J
12	0	0
1	60	0
1:20	75	0
1:30	90	20
2:00	120	
2:20		100
2:30	150	150
2:50		167
3:00	180	
3:10		
3:15		200
3:20		
3:30	210	

100 mi / hr

$100(1.67) = 167$

1 hr 40

1.67

3.2 (60)

3:20 am

Quiz 2

Name: Iliana De La Riva **Perm Number:** 6594473

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(30^{-2}\right)^{-1}$$

$$\frac{1}{20}(90)^{-1}$$

$$\frac{90}{20} = 4.5\%$$

$$4.5 = 20\overline{)90.0}$$
$$-80$$
$$100$$

4.5%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	+ x^2	+ x	+ 1
x	x^4	x^3	x^2	$1x$
-1	$-x^3$	$-x^2$	$-1x$	-1

$$= x^4 - 1$$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{a(5-3b)}{2a} \qquad \frac{14(a-2b)}{7}$$

$$\frac{(5-3b)\,2(a-2b)}{2}$$

$$\boxed{\frac{(5-3b)\,2(a-2b)}{2}}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12am

+40 mph

Bad Guy: 12 am —60 mph→ 1 am —60 mph→ 2 am —60 mph→

Jason Borne: 1:20 am —100 mph→ —100 mph→ 2:20 am

$$\boxed{2:20\text{ am}}$$

Quiz 2

Name: Daniela Carranza **Perm Number:** 6517759

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}(12^{-1}+18^{-1})^{-1}$$

$$\frac{1}{20}\left(\frac{12}{1}+\frac{18}{1}\right)$$

$$\frac{12}{20}+\frac{18}{20}=$$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4+x^3+x^2+1x-x^3-x^2-x-1$$

$$x^4+\cancel{x^3}-\cancel{x^3}+\cancel{x^2}-\cancel{x^2}+\cancel{1x}-\cancel{x}-1$$

$$x^4-1$$

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\left(\frac{70a-145ab}{14a}\right)\left(\frac{-42a^2b-84ab^2}{14a}\right)$$

$$\frac{70a-145ab-42a^2b-84ab^2}{14a}$$

$$\left(\frac{70-145b-42ab-84b^2}{14}\right)$$

$$\boxed{\frac{70-145b-42ab-84b^2}{14}}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12 + 1 hr 1:20

60 mph + 60 mph 100

120

$60t + 100t = 160t$ $160 - 40$

120 miles

$100 - 60 = 40$

$$\boxed{1:40 \text{ a.m.}}$$

Quiz 2

Name: Kyla Drengler Spin **Perm Number:** 8696767

1) Simplify the expression below and write it as a percent. → $\frac{1}{100}$

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{12}+\frac{1}{18}$

$\left(\frac{6}{72}+\frac{4}{72}\right)$

$\left(\frac{10}{72}\right)^{-1}$

$\frac{1}{\frac{10}{72}}$

$$\frac{1}{20}\cdot\frac{72}{10}=\frac{72}{200}=\frac{36}{100}=\frac{18}{50}=\frac{9}{25}\cdot\frac{1}{100}\%$$

$\frac{9}{250}\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

$$\frac{2}{1}\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right) = \frac{2a-4b}{1}$$

	5	$-3b$
$2a$	$10a$	$-6ab$
$-4b$	$-20b$	$12b^2$

$$\frac{10a-6ab-20b+12b^2}{2}$$

$$\boxed{5a-3ab-10b+6b^2}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

1 hour & 20mins
$\frac{1}{3}$ of an hour

60 (20, 30, 20)

60miles ahead

60mph →

IV

→ 100mph

3 hours 20mins

(bad) 180 : 200miles

(Jason) 100(2) = 200 miles

$$(60x+80) = 100x$$
$$-60x \qquad -60x$$
$$\frac{80}{40} = \frac{40x}{40}$$

$2 = x$ (hours)

1:20 + 2 hours = 3:20

$$\boxed{3:20\text{am}}$$

Quiz 2

Name: Isabella Agrusa **Perm Number:** 3962537

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$

$\frac{1}{20}\left(30^{-2}\right)^{-1}$

$\frac{1}{20}\left(\frac{1}{\sqrt{30}}\right)$

$\frac{1}{20}\left(\frac{1}{\sqrt{30}}\right)\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$(x^4+x^3+x^2+x)(-x^3-x^2-x)$

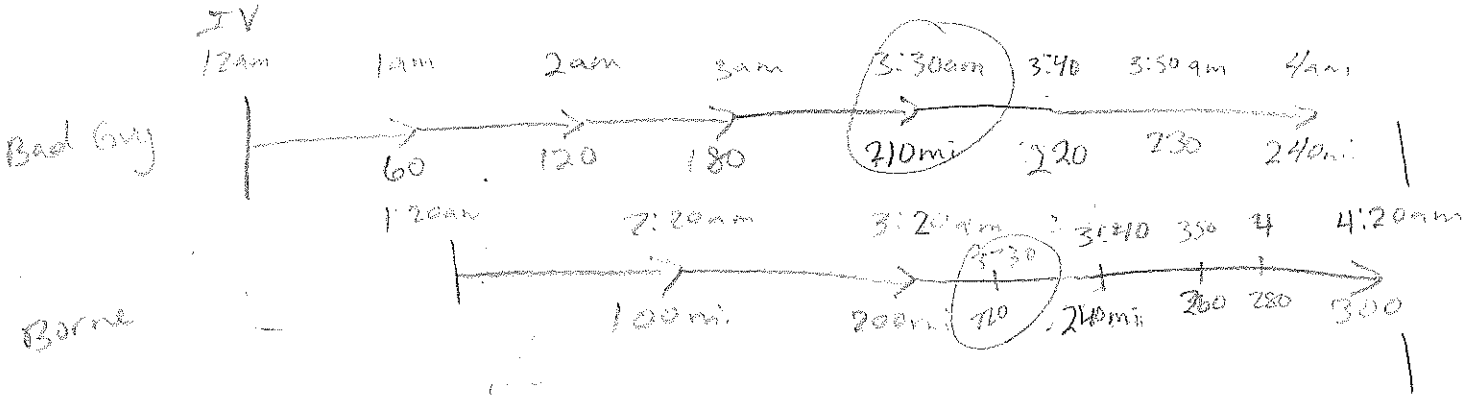
x^4

x^4

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



3:30 am

Quiz 2

Name: Michael Kuwelis **Perm Number:** 6423339

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$\frac{1}{20} \cdot 100 = \frac{100}{2000} = \frac{1}{20}$ 5%

5%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4+x^3+x^2+x-x^3-x^2-x-1$

x^4+1

3) Multiply out and simplify. writing the simplified answer in the box.

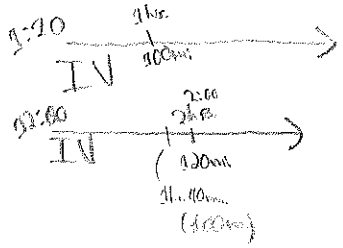
$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\frac{70a^2 - 140ab - 42a^2b + 84ab^2}{14a}$ $5a-10b-3ab+6b^2$

14a

$5a-10b-3ab+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:08 a.m.

Quiz 2

Name: Fleurette Juda **Perm Number:** 5279361

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{3}{36}+\frac{2}{36}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{36}{5}\right)$$

$$\frac{36}{100} = .36 = 36\%$$

36%

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify. writing the simplified answer in the box

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5}{2}-\frac{3b}{2}\right)(2a-4b)$

$5a-10b-3ab+6b^2$

$5a-10b-3ab+6b^2$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12 AM 60 mph

1:20 AM 100 mph

	R	T	d
C1	60	t	
C2	100	t − 80	

$60t = 100t - 8000$

$-40t = -8000$

$t = 200$ mins

200 mins

1:00 AM

1 hr = 120 mi

1:4 am

Quiz 2

Name: Leo Safir **Perm Number:** 5194121

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$= \frac{1}{20}(30-2)$$

$$= \frac{1}{20}\left(\frac{1}{30^2}\right)$$

$$\frac{1}{60^2} = \frac{1}{1200} \cdot 100\%$$

0.0

$\frac{1}{1200} \cdot 100\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$$

$$x^4 - 1$$

$x^4 - 1$

3) Multiply out and simplify writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

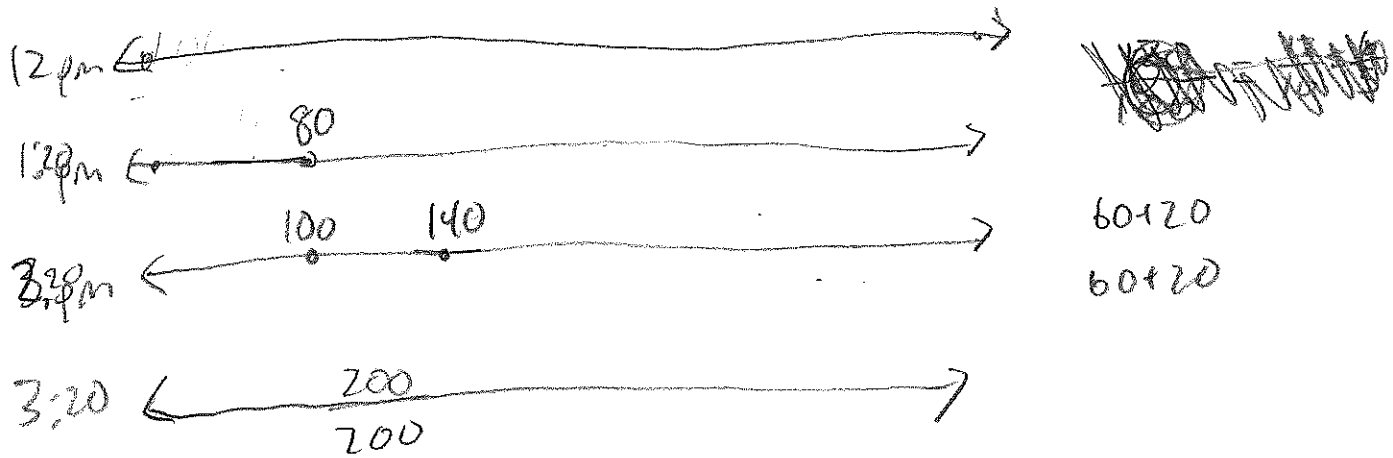
$$\left(\frac{3a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$28a^2 - 56ab + 35a - 21ab$

$28a^2 + 35a - 77ab$

$28a^2 + 35a - 77ab$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



3:20

Quiz 2

Name: Noelle Magana **Perm Number:** 6015414C

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$1/20 \times 36/5 = 36/100$

$1/20 (12 + 18)$

$1/20 \times 30$

$1/20 (30)$

$1/20 (1/12 + 1/18)$

$1/20 (3/36 + 2/36)$

$1/20 (5/36)^{-1}$

$\frac{1}{20} \times 36/1 = 36/20$

$1/20 (36/5)$

36%.

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$x^4 + x^3 + x^2 + x - x^3 - x^2 - x - 1$

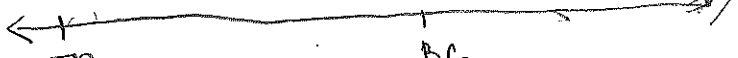
$x^4 - 1$

$x^4 - 1$

3) Multiply out and simplify, writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?



2:50 a.m

Quiz 2

Name: Shirley **Perm Number:** 58237752

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$1/20(12^{-1}+18^{-1})^{-1}$

$1/20(1/12+1/18)^{-1}$

$\frac{1}{12}+\frac{1}{18}$

$18 \times 12 = 36 + 180 = 216$

$1/20(1/216)^{-1}$

$1/20(216)$

$\frac{1}{20}\cdot\frac{216}{1}=\frac{216}{20}=\frac{18}{10}=\frac{9}{5}$ $5\overline{)9.00}\ 1.8$ $-5\downarrow$ 40 $=180\%$

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

$(x-1)(x^3+x^2+x+1)$

$x^4+x^3+x^2+1x-1x^3-1x^2-x-1$

(x^4-1)

3) Multiply out and simplify. writing the simplified answer in the box.

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$

$\left(\frac{5a}{2a}-\frac{3ab}{2a}\right)(2a-4b)$

$\frac{5a}{2a} \times \frac{2a}{1} = \frac{10a}{2a} = 5a$

$\left(5a-\frac{3ab}{2a}\right)(4b)$

$\left(5a-\frac{3ab}{2a} \cdot 4b\right)$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

12:00pm = 60x

1:20pm = 100x

12:00pm = 60x

1:20pm = 100x

3:00pm

Quiz 2

Name: Justin Jose **Perm Number:** 5345780

1) Simplify the expression below and write it as a percent.

$$\frac{1}{20}\left(12^{-1}+18^{-1}\right)^{-1}$$

$$\frac{1}{20}\left(\frac{1}{12}+\frac{1}{18}\right)^{-1}$$

$$\frac{1}{20}(12+18)$$

$$\frac{1}{20}(30)$$

150%

150%.

2) Multiply out and simplify. writing the simplified answer in the box.

$$(x-1)(x^3+x^2+x+1)$$

	x^3	x^2	x	1
x	x^4	x^3	x^2	x
-1	$-x^3$	$-x^2$	$-x$	-1

x^4-1

3) Multiply out and simplify. writing the simplified answer in the box.

	$14a$	$-28b$
$5a$	$-70a^2$	$-140ab$
$-3ab$	$42a^2b$	$84ab^2$

$$\left(\frac{5a-3ab}{2a}\right)\left(\frac{14a-28b}{7}\right)$$

$$\frac{42a^2b+84ab^2-70a^2-140ab}{14a}$$

$$7\left(\frac{6a^2b+12ab^2-10a^2-20ab}{2a}\right)$$

$$7a\left(\frac{6ab+12b^2-10a-20b}{2}\right)$$

$$14a\left(\frac{3ab+6b^2-5a-10b}{1}\right)$$

$$\boxed{14a(3ab+6b^2-5a-10b)}$$

4) A bad guy leaves Isla Vista at midnight, traveling on the 101. To avoid being pulled over, he maintains a speed of 60 miles per hour. At 1:20AM, Jason Borne leaves Isla Vista in the same direction at 100 miles per hour. At what time will Jason catch up to the bad guy?

$$BG = 60x + 80 = 100x = JB$$

$$-60 \qquad -60$$

$$80 = 40x$$

$$x = 2$$

$$\boxed{3:20\ am}$$