The court ____ the benefit of the doubt

a) Give him
b) Gave him
c) Given him
d) Giving him

- ____ absent minded student is never successful
- A) The
- B) A
- C) An
- D) If

- This photograph ____ taken a long time ago
- A) is
- B) was ✓
- C) are ✗
- D) were ✗

She insisted ____ going_____ Lahore

a) On: to

b) At: for

c) From: to

d) For: at

- Antonym of private
- public .

- Antonym of unreal
- genuine

- Antonym of famous
- unknown

- When n is divided by 14, the remainder is 10. find the remainder when n is divided by 7?

3

$14 \overline{)n} = 10$

$7 \overline{)24}$
21
3

- Ali has thrice money as Ahmed. Ali gives Ahmed Rs.50 and now Ahmed has thrice money as Ali. Find the total amount that both have?

Ali money = x , Ahmed money = y

$x = 3y$ ... (i)

$3(x-50) = y+50$

$3x-150 = y+50 \Rightarrow 3x = y+200$ ... (ii)

$3(3y) = y+200 \Rightarrow 9y = y+200$

$8y = 200$

$y = 25$ Rs

- From 2002 to 2003, the book sale decreased by 80 %. Now in 2004, the book sale is same as 2002. Find the percentage increase from 2003 to 2004 → 400 %

100 books → 2002

20 books → 2003

100 books → 2004

$$\left(\frac{2004 - 2003}{2003}\right) \times 100$$

$$= \frac{80}{20} \times 100$$

$$= 4 \times 100$$

$$= 400\%$$

- If m is the median and M is the mode in the following sequence 20,90,70,10,40,70. Find the arithmetic mean of m and M?

10, 20, 40, 70, 70, 90

M = 70

$m = \frac{40+70}{2} = \frac{110}{2} = 55$

$A = \frac{m+M}{2} = \frac{55+70}{2} = \frac{125}{2} = 62.5$

a, b

$\frac{a+b}{2}$

m, M

$\frac{m+M}{2}$

- Add 5 hours 13 minutes, 3 hours 49 minutes and 14 minutes?

5 hrs 13 minutes = (5 × 60) + 13 = 313

3 hrs 49 mins = (3 × 60) + 49 = 229

313 + 229 + 14

= 556 mins

540 mins + 16 mins

= 9 hrs + 16 mins

- What is the HCF of 20 and 30?

10

20 → 1, 2, 4, 5, 10, 20

30 → 1, 2, 3, 5, 10, 15, 30

- Find the value of m if 23m=69

$$\frac{23m}{23} = \frac{69}{23}$$

$$m = \frac{69}{23} = \frac{3}{1} = 3$$

$m=3$

23
46
69

- Find value of 2x+5 if 7x=3x+12

$7x = 3x + 12$

$7x - 3x = 12$

$4x = 12 \Rightarrow x = \frac{12}{4} = 3$

$x = 3$

$2(3) + 5 = 6 + 5 = 11$

- If $x=-2$ find $2x^2-2x$

$$2(-2)^2 - 2(-2)$$
$$= 2(4) + 4$$
$$= 8 + 4$$
$$= 12.$$

• Simplify (51/17)*(100/50)

$$\frac{\overset{3}{\cancel{51}}}{\underset{1}{\cancel{17}}} \times \frac{\overset{2}{\cancel{100}}}{\underset{1}{\cancel{50}}}$$

$= 3 \times 2 = 6$

17
34
51

- Simplify : -6-(-2)

$-6-(-2)$

$-6+2$

$=-4$

$- \times - = +$

$+ \times - = -$

$- \times + = -$

$+ \times + = +$

- 7 is added to a number and result is 22. Find the number

$7 + x = 22$

$x = 22 - 7$

$x = 15$

- A square has a side 4cm. Find the perimeter

$P = 4L$

$= 4 \times 4$

$= 16cm$

- Find x if 12:x :: x:3

$$\frac{12}{x} = \frac{x}{3}$$

$$x^2 = 12 \times 3$$

$$x^2 = 36$$

$$x = \pm 6 \quad \Rightarrow \quad x = 6$$

• 6 added to twice itself. What is the result? •

$6 + 2(6) = 6 + 12 = 18$

- The sum of two angles is 90 degree. Then these angles are called

complementary angles

- If $x+1/x=10$ find x^2+1/x^2 $\quad a=x,\ b=\frac{1}{x}$

$$x+\frac{1}{x}=10$$

$$\left(x+\frac{1}{x}\right)^2=100$$

$$x^2+\frac{1}{x^2}+2(x)\left(\frac{1}{x}\right)=100$$

$$x^2+\frac{1}{x^2}+2=100 \Rightarrow x^2+\frac{1}{x^2}=100-2$$

$$=98$$

- The cost of 5 chairs is Rs.2000. Find the cost of 12 chairs?

5 chairs = 2000

1 chair = $\frac{2000}{5}$ = 400

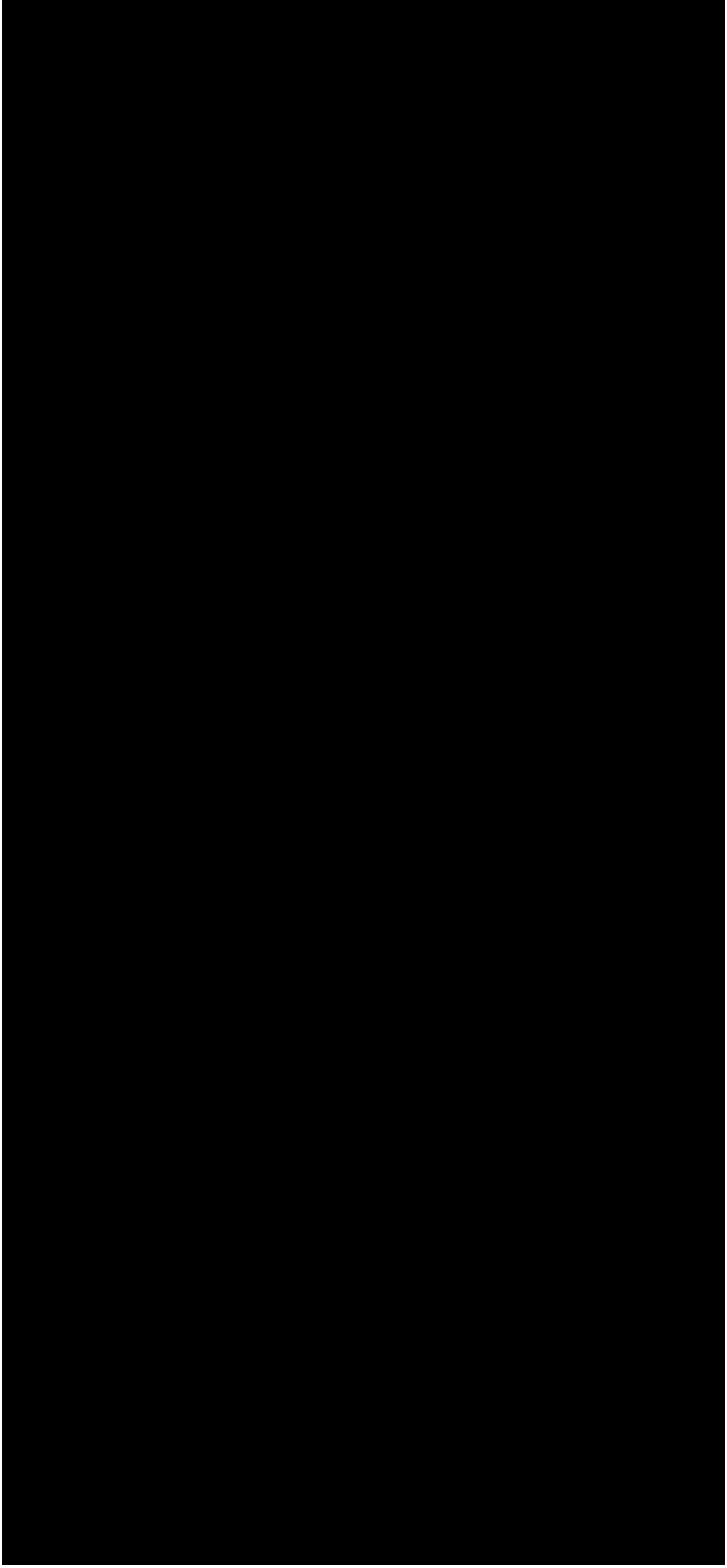
12 chairs = 400 × 12

= 4800 .

- When 9 is added to twice a number, the sum is 39. Find the number

x

$$9 + 2x = 39$$
$$2x = 39 - 9$$
$$2x = 30$$
$$x = 15$$



• 0.01X0.01

$\frac{1}{100} \times \frac{1}{100} = \frac{1}{10,000} = 0.0001$

- If axbxc=72 and a>b>c>1 and are integers. What is the greatest possible value of a?

$b > c$ $\quad b = 3, \quad c = 2$

$$a \times 3 \times 2 = 72$$

$$a \times 6 = 72$$

$$6a = 72$$

$$a = \frac{72}{6} = 12.$$

- In a jar 1/2 of marbles are red, ¼ are white and 1/5 are blue. What fraction of marbles are neither red, white nor blue?

No. of marbles that are either red, white or blue

$$= \frac{1.5}{4.5} + \frac{1.4}{5.4} + \frac{1.10}{2.10}$$

$$= \frac{5+4+10}{20} = \frac{19}{20}$$

- Number of prime factors of 12? 3

2, 3, 5, 7

3

$2 \times 2 \times 3$

- **Simplify $(12s^3)^2$**

$(12s^3)^2$

$= (12)^2 (s^3)^2$

$= 144\, s^6$

5

$5^3 \times 5^2$

$= 5^5$

$(5^3)^2$

$= 5^6$

- **Simplify $(12s^3)^2$**

$(12s^3)^2$

$= (12)^2 (s^3)^2$

$= 144\, s^6$

s

- One gallon is enough to travel 15 kms. How many galloons are required 150 kms?

One gallon = 15 km

10 gallon = 150 km

- Sweets are 4 for Rs. 0.80 and biscuits are 3 for Rs 1.05. What is Kiran's change for Rs. 5.00 if she buys 8 sweets and 6 biscuits?

4 sweets = 0.80 → 8 sweet = 1.60

3 biscuits = 1.05 → 6 biscuits = 2.10

1.6 + 2.10 = 3.70

5 − 3.70 = 1.30 Rs

- If $x=-5$, find x^2+3x+7?.

$$(-5)^2 + 3(-5) + 7$$

$$25 - 15 + 7$$

$$= 10 + 7$$

$$= 17$$

- Which number when multiplied by itself equals one less than half century?

50

$a \times a = 49$

$a^2 = 49$

$a = 7$

- Find the average of 15,14,13,12 and 6?

$$Av = \frac{15 + 14 + 13 + 12 + 6}{5}$$

$$= \frac{60}{5} = 12$$

- Simplify 225/300 .

$$\frac{225}{300} = \frac{45}{60} = \frac{9}{12} = \frac{3}{4}$$

- If $x=4$, $y=-2$, find $(x-y)^2$

$$(4-(-2))^2 = (4+2)^2 = 6^2 = 36$$

- A mother is 3 times the age of her son, and sum of their ages is 28. Find the age of the son?

$M = 3S$

$M + S = 28$

$3S + S = 28$

$4S = 28$

$S = 7$ years

- In how many ways, 6 books can be arranged in a shelf?

$6!$

$6 \times 5 \times 4 \times 3 \times 2 \times 1$

$= 720$

- If $2p+5=20$, find $2p-5$?

$2p+5 = 20$

$2p = 15$ ...

$2p-5 = 15-5$

$2p-5 = 10$

- What is 75% of 200?

$= \frac{75}{100} \times 200$

$= 150$

- Simplify $(x+2)(x+3)$

$$x^2+2x+3x+6$$

$$= x^2+5x+6$$

- Find additive inverse of -5?

$-5 + (+5) = 0$

↓

+5

• 1.5 % of 100?

$$\frac{1.5}{100} \times 100$$

$$= 1.5 = 3/2$$

- Which number is both square and Cube?

64 → 4^3

8^2

• 6+6-6x6 /6

= 6+6-6x1

6+6-6

= 12-6

= 6 ✓

DMAS → addition, subtraction

↓

Division, Multiplication

- If 12 books cost 264 rupees. How much will 9 book cost?

12 books = 264 rupees

1 book = $\frac{264}{12}$ rupees = 22 rupees

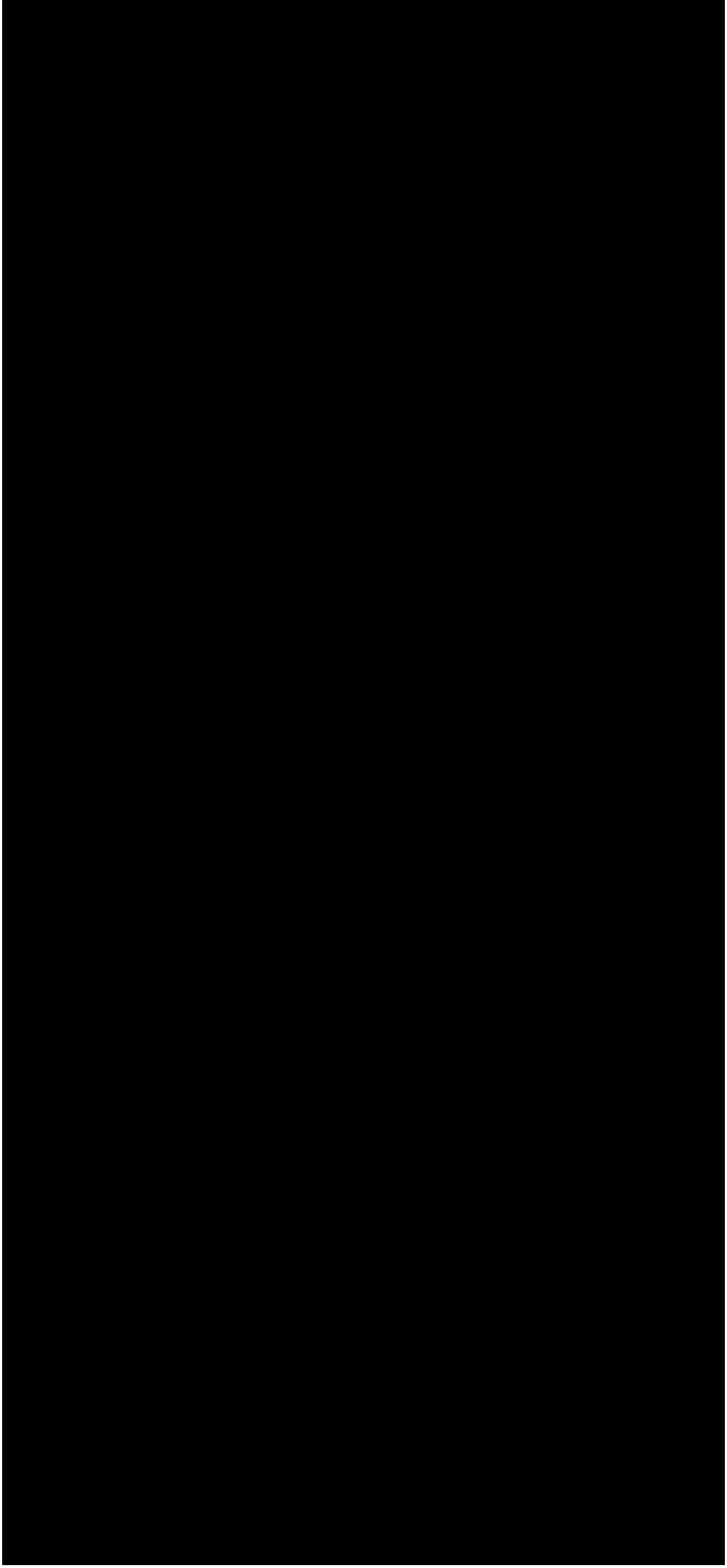
9 books = 9 × 22 = 198 rs.

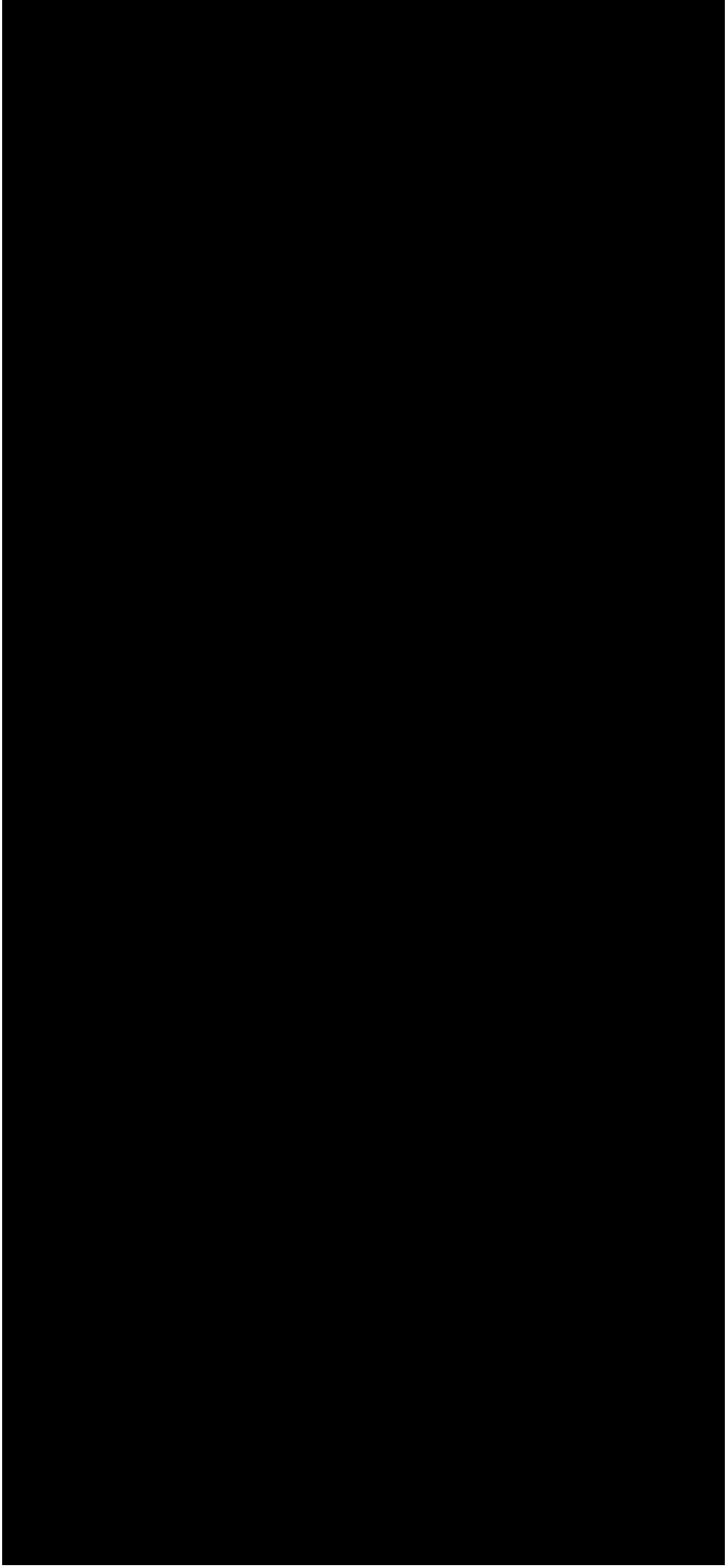
2.

- Convert 13.5% to fraction form?

$$\frac{13.5}{100} = \frac{13.5}{100} \times \frac{10}{10}$$

$$= \frac{135}{1000} = \frac{27}{200}$$





- EYES : SEE
- A) hands : cry ×
- B) ears : hear
- C) feet : talk ×
- D) teeth : think ×

- MECHANIC : CARS
- A) dentist : teeth
- B) doctor : children
- C) chef : vegetables
- D) playwright : theaters

A mechanic works on people's cars. A dentist works on people's teeth

- STRANGE : FAMILIAR
- A) easy : simple ✗
- B) great : good ✗
- C) pretty : sour ✗
- D) sick : healthy

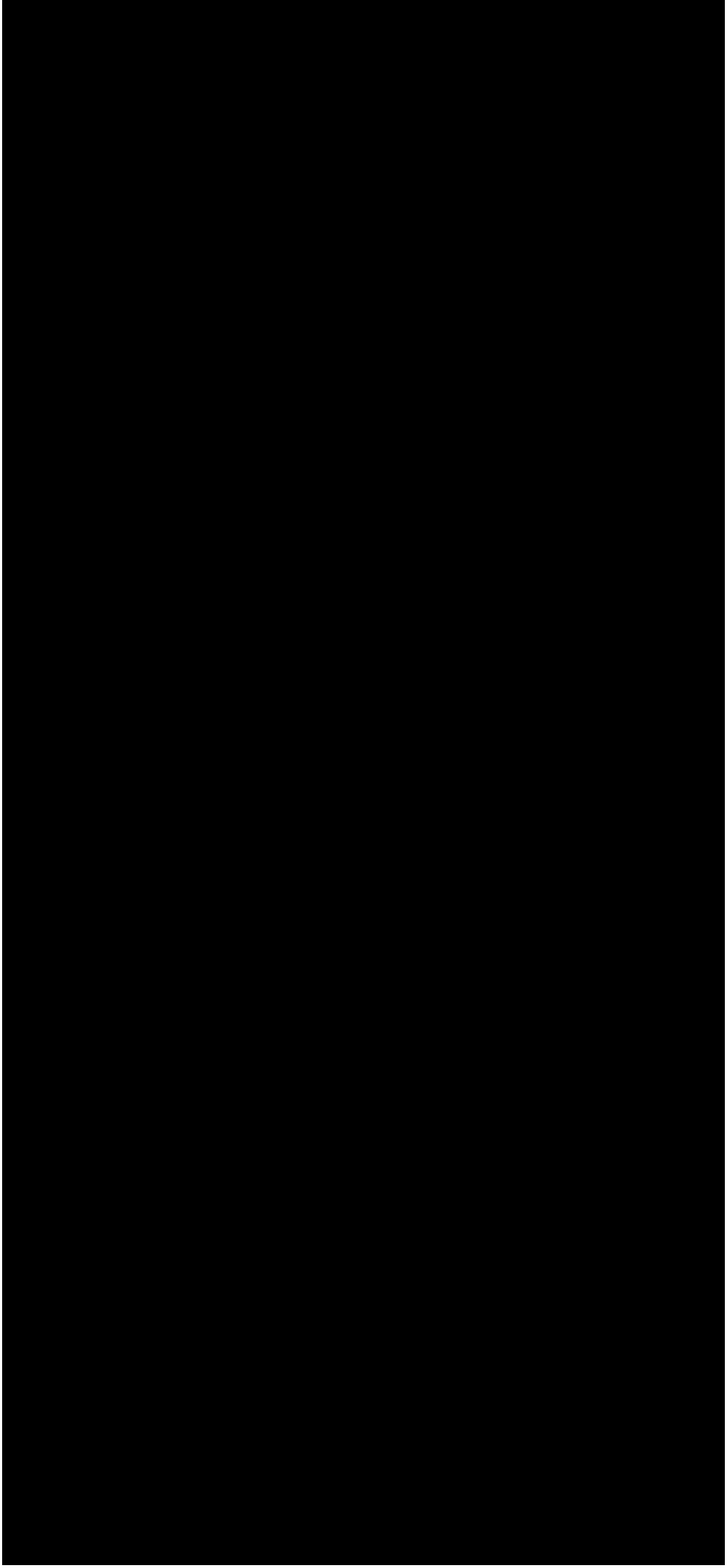
The opposite of sick is to be healthy

- COFFEE : BITTER
- A) meat : fried ✗
- B) glass : fragile
- C) gas : cheap ✗
- D) silk : rough ✗

A characteristic of glass is to be fragile

- HUGE : LARGE
- A) possible : easy
- B) critical : important
- C) likely : incredible
- D) upsetting : offensive

Something that is huge is very large. Something that is critical is very important



- Greed : Corruption
- A) Insult : Enemy
- B) Sleep : Dream
- C) Goodwill : Friendship
- D) Knowledge: book

One leads to another

- Greed : Corruption
- A) Insult : Enemy
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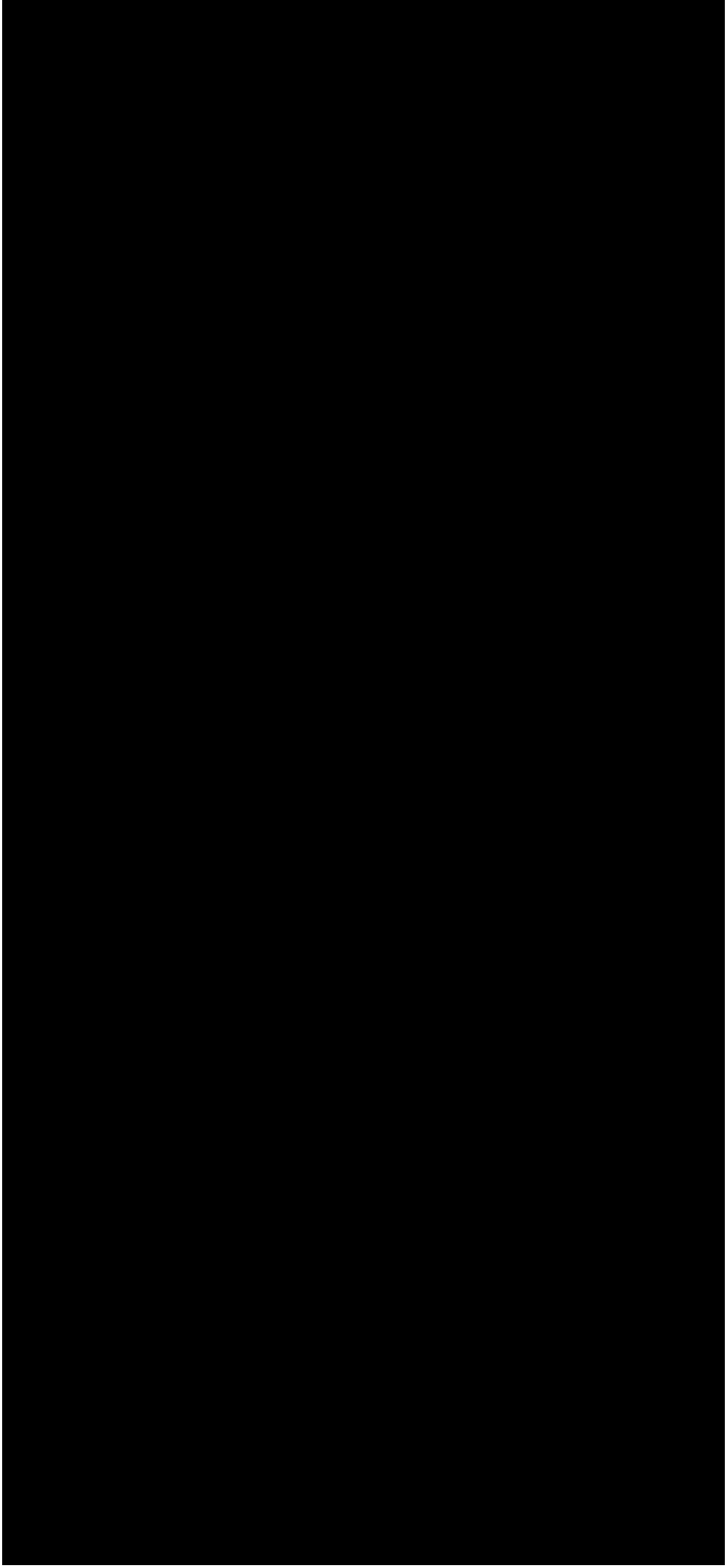
One leads to another

- COMEDY : FUNNY
- A) mystery : boring
- B) drama : romantic
- C) tragedy : sad
- D) newspaper : expensive

A characteristic of a comedy is to be funny. A characteristic of a tragedy is to be sad

- Antonym of obtain
- Lose
- Relinquish
- Gave up
- Handed over

- Antonym of official
- Unofficial
- Un-authorized
- Informal
- Casual
- Unreliable



- Antonym of optional
- Compulsory
- Obligatory
- Mandatory
- Required
- Non elective
- Essential

- Antonym of benefit
- Disadvantage
- drawback
- damage
- harm
- detriment

- Antonym of alter
- Retain
- constant
- hold
- Keep
- Remain
- stay

- Antonym of ghastly خوفناک
- Pleasant
- Charming
- Unalarming
- healthy

- Antonym of ghastly
- Pleasant
- Charming
- Unalarming
- healthy

- Antonym of ghastly
- Pleasant
- Charming
- Unalarming
- healthy

- Antonym of bombastic
- direct
- straightforward
- plainspoken
- Simple

- Antonym of join
- Separate
- Leave
- disconnect
- Quit
- Withdraw
- detach

- Analogy of carrot : cabbage
- Fox:den
- Lion: hole
- Water: sip
- Tea : coffee

- Antonym of possible
- Impossible
- Unlikely
- Impractical