SkuMath

The Seller's Profit Cheat Sheet

Every formula, fee rate and margin target you need to price a product before you buy inventory.

Inside: the net profit formula · fee reference table · advertising math · backward pricing · inventory formulas · the 30-second SKU health check

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1. The Net Profit Formula

Every product decision comes back to one number. This is it. If you remember nothing else from this sheet, remember this and the fact that fees are charged on **price**, not on your cost.

```
Net Profit = Price − (COGS + Inbound + Referral + Fulfilment
           + Storage + Ads + Returns + Other)
```

```
Net Margin % = Net Profit ÷ Price × 100
```

The nine cost lines

#	Cost line	How to get it
1	COGS	Supplier unit price, including any prep or labelling
2	Inbound freight	Total shipment cost ÷ units in that shipment
3	Referral fee	Price × category rate (8-15%), min $0.30
4	FBA fulfilment	Size tier + weight from the FBA rate card
5	Storage	Monthly rate × cubic ft × months held ÷ units
6	Advertising	Ad spend ÷ units sold (use TACoS, not ACoS)
7	Returns	Return rate × (out + return shipping + restock + ad cost)
8	Payment/other	Refund admin, subscription, misc per unit
9	Overhead share	Fixed costs ÷ units sold (optional but real)

Healthy targets

Metric	Minimum	Healthy	Strong
Net margin after ads	10%	15-20%	25%+
Contribution margin	$3.00	$6-10	$12+
Return on ad spend	3.0	4-5	6+
Sell-through (90d)	15%	20-30%	30%+
Return rate	< 15%	< 10%	< 5%

Minimums are the point at which a product is worth keeping. Healthy is where a catalogue should sit on average. Strong is achievable on a differentiated product.

2. Fee Reference

Rates change annually — verify in Seller Central before committing to inventory. These are the figures to plan against.

Referral fees by category

Category	Referral fee	Notes
Electronics	8%	8% on the portion above $100 in some sub-categories
Computers	8%	—
Home & Kitchen	15%	8% for items priced ≤ $15
Beauty	8-15%	8% on the portion above $10
Toys & Games	15%	8% on the portion above $20
Books	15%	Plus $1.80 closing fee
Clothing	5-17%	5% below $15, 10% $15-20, 17% above $20
Grocery	8-15%	8% on the portion above $15
Pet Supplies	15%	8% on the portion above $10
Sports	15%	8% on the portion above $20

Most categories apply a **$0.30 minimum** per-item referral fee.

FBA fulfilment — standard size

Size tier	Weight	Fulfilment fee
Small standard	≤ 4 oz	$3.06 - $3.27
Small standard	4-8 oz	$3.35 - $3.58
Large standard	≤ 8 oz	$3.80 - $4.09
Large standard	8-12 oz	$4.24 - $4.55
Large standard	12-16 oz	$4.60 - $4.99
Large standard	1-2 lb	$5.24 - $5.72
Large standard	2-3 lb	$5.77 - $6.30

Storage and other charges

Charge	Typical rate
Monthly storage (Jan-Sep)	$0.78 per cubic ft
Monthly storage (Oct-Dec)	$2.40 per cubic ft
Aged inventory 181-270 days	$0.50 - $1.50 per unit

Charge	Typical rate
Aged inventory 365+ days	$5.45+ per unit or 6.90 per cubic ft
Removal order	$0.60 - $1.20 per unit
Returns processing	Often equal to the original fulfilment fee

3. Advertising Math

Advertising is the leak that scales. It is priced per order while the margin it consumes is a share of revenue, so the two move independently as you grow.

The four numbers

Metric	Formula	Meaning
ACoS	Ad spend ÷ ad revenue × 100	Efficiency of the ad channel alone
ROAS	Ad revenue ÷ ad spend	Inverse of ACoS; a ROAS of 4 = ACoS 25%
TACoS	Ad spend ÷ TOTAL revenue × 100	The honest burden — includes organic
CPA	Ad spend ÷ orders	What you pay for one order

Break-even ACoS — the number that matters

```
Break-even ACoS = (Profit before ads ÷ Price) × 100
```

If your price is $30 and pre-ad profit is $9, your break-even ACoS is 30%. Spend more than that on ads and you are paying to sell.

Max bid from unit economics

```
Max bid = Price × Break-even ACoS × Conversion rate
```

Example: $30 price, 30% break-even ACoS, 10% conversion → $30 × 0.30 × 0.10 = **$0.90 max bid**. Note that improving conversion from 8% to 12% lets you bid 50% more at the same profitability — listing optimisation and PPC are the same problem.

Bid adjustment rules

- Start at **70% of max bid** and gather data for two weeks.
- Raise bids on keywords whose ACoS is below break-even.
- Never judge a keyword on fewer than **15 clicks** — it is noise.
- Watch **TACoS**, not ACoS, once organic sales are meaningful.
- A falling TACoS with flat sales means organic rank is improving.

4. Backward Pricing

Cost-plus pricing undercharges, because fees are a percentage of price rather than of cost. Solve for price instead of adding margin to cost.

```
Price = (COGS + Per-unit costs + Target profit)
        ÷ (1 − fee rate − ad rate − return rate)
```

Worked example

Input	Value
COGS	$8.00
Inbound shipping	$1.20
FBA fulfilment	$4.75
Target net profit	$6.00
Sum of costs + profit	$19.95
Referral fee	15%
Ad rate (TACoS)	10%
Return rate	5%
Required price	**$28.50**

The naive answer is $19.95. The correct answer is $28.50 — **43% higher** — because 30% of revenue is consumed by percentage-based costs. Dividing by the remainder is the step most sellers skip.

Pricing moves

- Raise price in **3-5% increments** and watch unit velocity for two weeks.
- Raise when conversion is above category average — you have room.
- Raise when your review count exceeds the top competitor's.
- Never price below the calculated floor to win a price war.
- Charm pricing ($28.49) still outperforms round numbers in most tests.

5. Inventory Formulas

Inventory is where profit turns into cash — or stops. These four formulas cover most of what you need to plan a reorder.

What you want	Formula
Sell-through rate	Units sold ÷ units received × 100
Days of inventory	Inventory units ÷ average daily units sold
Reorder point	Daily velocity × lead time + safety stock
Safety stock	Z × σ demand × √(lead time)
Reorder quantity	Velocity × (lead time + review period) + safety – on hand
Inventory turnover	COGS ÷ average inventory value
Cash in inventory	Average inventory value × (cycle days ÷ 30)
Cash conversion cycle	Inventory days + receivable days – payable days
Stockout cost	Days out × daily units × contribution margin

Sell-through benchmarks

Rate (90-day)	Assessment	Action
Above 30%	Excellent	Increase order quantities
20-30%	Healthy	Hold course
10-20%	Watch	Slow reorders, review forecasting
Below 10%	Problem	Promote, bundle, or remove

Why growth consumes cash

If you sell $10,000 a month with a 74-day cash conversion cycle, roughly $24,600 is tied up in working capital. Double sales and you need $49,200 — an extra $24,600 you must find, even while profitable. Forecast 13 weeks ahead, weekly, not monthly.

6. The 30-Second SKU Health Check

Run this on every SKU once a month. Any 'No' is a decision you need to make, not a number to watch.

Check	Why it matters
Net margin after ads ≥ 15%?	Below this the SKU cannot absorb a fee rise or a price war.
TACoS below break-even ACoS?	Above it, every incremental sale costs you money.
Contribution margin positive?	If negative, more volume makes the loss bigger.
Sell-through (90d) above 15%?	Below it, storage and aged surcharges compound.
Days of inventory below 90?	Above it you are converting cash into unsold stock.
Return rate below 10%?	Above it, fix the listing before scaling spend.
No stockout days last month?	Each stockout day costs rank you pay to rebuild.
Price above your calculated floor?	If not, you are subsidising sales.
Ad spend profitable after 15+ clicks?	Judge keywords on data, not on 3 clicks.
Would you re-launch this SKU today?	If no, plan the exit rather than another reorder.

Scoring

9-10 yes — scale it. **7-8 yes** — fix the specific failures, then scale. **5-6 yes** — hold, do not add inventory. **Below 5** — plan an exit; liquidation at 10% of cost usually beats a year of storage plus aged surcharges.